

THE
CYCLOPEDIA OF INDIA.



South-East View of FORT ST. GEORGE, MADRAS.
From an engraving by THOMAS DANIELL, 1793.

THE
CYCLOPEDIA OF INDIA

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Commercial

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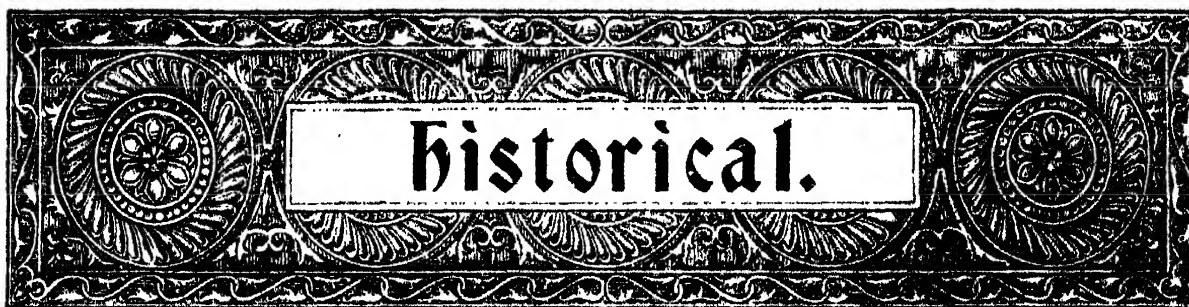
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ERRATUM.

LABHICHAND MOTICHAND, Vol. II, page 345, portrait of Motichand Sett, *read* Motichand Nakhat.



PART III. PERIOD OF EUROPEAN ASCENDANCY.

DURING the reign of Aurangzeb the European settlements in India had been increasing both in number and importance. The Dutch continued and completed the overthrow of the Portuguese power in India and Ceylon. Portugal lost her possessions and her trade: Goa, Diu and Damaun alone remained. But the commercial inheritance of the Portuguese was hotly contested between the Dutch and the English. For a short time at the close of the 17th century the Dutch were the greatest European power in Asia, but their most successful efforts lay in the Islands of the Eastern Archipelago. From about 1700 Holland began to decline in power in the east declined also. England and France were now the rising commercial forces in India.

The European settlements in India.

Dutch complete overthrow of Portuguese.

The foundation of English trade in the Indies and the increase of their settlements have been adverted to under the reigns of Jehangir and Shah Jehan. Further progress is to be noted during Aurangzeb's long reign.

But Dutch greatness shortlived.

The island of Bombay passed to Charles II from Portugal, as the dowry of his Portuguese wife. It was in 1660 transferred to the East India Company who made it their western capital. A prosperous town soon sprang up where lately a meagre fishing village had existed. Here the English factors governed and administered their own land, erected their own mint, and strengthened their position by a fort. When Surat had been the western centre of the Company, English, Dutch, and Portuguese settlements had all existed defencelessly side by side under the eye and control of a Mohammedan governor. The change to a position of independence and territorial jurisdiction was not the result of any ambition for empire, for the directors of the Company still had no thought but for trade. But the growing anarchy and the lawless depredation of

Growth of English settlements.

the Mahrattas necessitated a change of policy. Aurangzeb's mismanagement of his empire therefore

Important change of policy.

was responsible for the beginnings of English territorial rule in India. The Company during this time maintained and added to its factories on the Coromandel Coast, and also obtained a firmer foothold in Bengal. In 1686 the English moved from Hugli to Calcutta, so that the seventeenth century witnessed the foundation of the three Presidency towns of the British Empire.

The French arrived in India last of the four European powers who have in modern times been associated with the country. Colbert established a French company on a firm footing in 1664. A factory was first established at Surat, then at Masulipatam. Ten years later the French obtained a grant of land from the Bijapur State and built Pondicherry, which became the capital of the Indian possessions of France.

Foundation of Pondicherry, 1673.

In 1688 the French were permitted to establish a factory at (Chandranagor) in Bengal, so that the French like the English were firmly established in what were afterwards known as the three Presidencies. But Pondicherry was by far the most important of the French stations. It was threatened by Sivaji in a Southern raid of his, and was once captured by the Dutch; but before the death of Aurangzeb it had risen to a position of greatness as an emporium of trade in Southern India, and the French were eagerly courted by Indian princes. Thus the English and the French were the surviving legatees of earlier European commercial enterprise, and it remained for them to fight out in the eighteenth century their great duel for Indian dominion.*

THE BREAK-UP OF THE MOGUL EMPIRE.

Aurangzeb's demise was followed by the usual war of succession. Three sons of the aged monarch survived, and the empire was divided amongst them by his will. Muazzim was the eldest, Azam the second, Kam Baksh the youngest. Azam discontented with

* We have perforce to be content with this and the preceding brief summaries of the beginnings of the European adventure in India. Detailed information can be found in Sir W. Hunter's invaluable but alas! incomplete History of British India (2 vols.). The narrative ends with the year 1703.

his allotted share, began the war by marching on Delhi, his elder brother's capital. At the same time Kam Baksh declared himself independent in the Deccan. Both movements were defeated, and the victor mounted the throne under the title of Bahadur Shah. The new Emperor was already over seventy. He was mild and conciliatory, anxious above all for

Bahadur Shah,
1707—1712.

peace. Still the *Jizya* was not remitted, and the Hindus were only half conciliated. The Empire seemed in an advanced state of disintegration. Mahrattas, Rajputs, Jats, Sikhs, all were in arms against the House of Timur. The chances of the Emperor were poor, seeing that his nobles were selfish and unreliable, while his soldiers were dispirited and degenerate. Bahadur, however, had gained sufficient wisdom from his father's mistakes to abandon the struggle in the Deccan and to conciliate the Rajputs. He acknowledged the authority of Sahu, Sivaji's grandson, and the Mahrattas were plunged into a civil war of succession. But the Sikhs rendered strong and resolute under Moslem oppression, by these ravages in the Punjab, now demanded instant punishment. They were defeated by Bahadur with great slaughter, but before their final overthrow the old Emperor died. The Sayyids, a few years later, crushed the Sikhs into ineffectiveness for several generations.

Zulfikar Khan, a noted general of Aurangzeb, and all-powerful under Bahadur, now secured the Empire for the weakest claimant, Jahandar Shah, 1712—13.

Jahandar, thereby himself becoming the virtual ruler. But he was a poor administrator and the puppet Emperor proved to be a failure. Increased demoralisation and corruption brought about a palace revolution, the result of which was that the Sayyid brothers, Hosein Ali and Abdulla, seated Farukh Siyar, a grandson of Bahadur, upon the throne of Delhi, and put to death both Zulfikar and his tool. Still the condition of the Empire did not improve.

Farukh Siyar, 1713—14.

The Sikhs, indeed, were suppressed, but disorder and war harassed the provinces of Hindustan. Farukh Siyar was a mere figure head, and remained content to witness the intrigues which proceeded round the throne. At this

The Sayyid brothers and
Asaf Jah.

time there came to the front an old officer of Aurangzeb, Chinn-kilich Khan, leader of the Turkish and anti-Shiah faction, better known as the statesman Asaf Jah, and as Nizam-ul-Mulk, the founder of a dynasty in the Deccan. While these leaders struggled for the mastery, the Mahrattas increased their power, and the people groaned under tyranny and oppression. "Moslems and Hindus," in the words of a contemporary chronicler, "united in prayers for the downfall of the Government." When the feeble Emperor sought to escape from galling tutelage, an unholy alliance was formed between the Sayyids, Asaf Jah and the Mahrattas. All opposition being speedily overcome, the Emperor was seized and put to death. This event is an important landmark in the history of the Mahrattas, for it was the first time that they had interfered in the affairs of Delhi.

A couple of puppet kings were crowned in turn, but both died within the year. Then Mohammed Shah,

another grandson of Bahadur, was placed upon the throne. What power he held was gained by intrigue and combination with the various governors

Mohammed Shah,
1710—1747.

and adventurers who now partitioned the distracted empire. Thus the Sayyids were got rid of, and the Shiah faction was overthrown. But the dismemberment of the empire proceeded apace. While the Emperor abandoned himself to pleasure, new kingdoms sprang up on every side. Asaf Jah, pretending allegiance to Delhi, made himself independent in the Deccan, and under the name of Nizam-ul-Mulk, founded the Mohammedan dynasty which still reigns in Haiderabad. His dominions at least had peace and good government, for the veteran statesman realized the necessity of coming to terms with the Mahrattas. Nominally dependent upon the Nizam, but completely independent of Delhi, was the Nawab of

Foundation of new States
on all sides.

the Carnatic, whose country was soon destined to become the fighting ground of the French and English. Also in the south, to the west of the Carnatic, lay the State of Mysore, which had been founded in the seventeenth century, and may be regarded as the lineal descendant of Vijayanagar. It was still in Hindu hands, but was shortly destined to fall into the hands of that Moslem adventurer Haider Ali, who followed by his son Tippoo, threatened the growth of British power towards the end of the century. In the north, Saadat Khan, a Persian adventurer, transformed his Subah into the independent kingdom of Oudh about 1732. This state lasted for a century and a quarter until it was annexed by Lord Dalhousie in 1856. Before the end of Mahommed Shah's reign the Punjab had severed its connection with the Empire, having fallen into the hands of the Afghans. The Rajputs also had regained complete independence, in Rajputana, while the Jats had established themselves firmly in Bhurtpur, and the Rohilla Afghans in the country round Bareilly. In the East a new dynasty had arisen. A Brahman convert governed Behar, Bengal and Orissa, but this dynasty was in its turn subverted by a Turkoman, Aliverdi Khan, whose successors came into conflict with the growing English Colony at Calcutta.

But the severest blows to the Empire were dealt by the Mahrattas and by Nadir Shah, the Persian king. The civil war in Mahratta adverted to above, ended in the nominal triumph of Sahu, the grandson of Sivaji. But the family of the Mahratta hero had approached the end of its short-lived power. Sahu chose as his Peishwa, or Prime Minister, a Brahman of remarkable ability, named Balaji Bishwanath.

Growing power of
Mahrattas under
Peishwas.

Balaji saved the State from the ruin which faction threatened, receiving in return a hereditary grant of his office, and henceforth the Peishwa was the real Mahratta king. The State was reorganised and the Mahratta power reconstituted on a firmer and more enduring basis.* That the Mahrattas quickly recovered from their disorder is proved by their activity

* The basis of the Mahratta State and the later confederation, as also the principles of Mahratta administration, may be studied in Grant Duff's History of the Mahrattas, and Mr. Justice Ranade's (uncompleted) Rise of the Mahratta Power.

during the next few years, and their intervention, already noticed, at Delhi in 1719. In 1720 Balaji was succeeded as Peishwa by his equally able son Baji Rao I. Henceforth we hear little of the titular chiefs of Maharashtra, who lived, in empty state at Satara, while their ministers reigned at Poona. But there were coming to the fore a group of new Mahratta leaders, who eventually founded new kingdoms for themselves, each forming part of the larger confederation, and nominally at least obeying the orders of the Peishwa. "The chief of these were Ranaji Scindhia, who had at one time served as the Peishwa's slipper-bearer, Malhar Rao Holkar, a Sudra by caste, and Pilaji Gackwar, a cowherd." These leaders devoted themselves to campaigns of aggression against neighbouring States. The Nizam only contrived to hold them at arm's length

New Mahratta leaders carve out kingdoms for themselves.

by conceding the right of *chauth* or black-mail, estimated at a quarter of the produce. By 1734 the Mahrattas had overrun Gujerat and Malwa, and two years later they plundered the suburbs of Delhi. The Nizam, appealed to by Mohammed Shah, in his extremity, marched to confront the foe, but being completely outnumbered, was forced to capitulate. All territories between the Narbada and the Chambal were ceded to the Peishwa. Malwa was divided between Sindhia and Holkar, and formed the basis of the existing States of Gwalior and Indore. About the same time the Gackwar had succeeded in firmly establishing himself in Gujerat, and a new Mahratta leader, Raghoji Bhonsla, planted himself in Berar, whence he executed plundering raids into Bengal and Orissa. Meanwhile in 1740. Baji Rao died and was succeeded by his son, Balaji Baji Rao. But the Mahrattas, while they had become incomparably the greatest power in India, had swollen into a confederation too great for the central control of the Poona minister. Henceforth jealousies and intrigues grow more frequent; the strength of the confederation is impaired, the eventual supremacy of the British ensured. The defeat at Panipat, shortly to be noticed, still further weakened the Mahrattas. It was a blow from which they never recovered, it "swept away the Mahrattas to make a clear path for the English." This, however, is to anticipate events, for at the point of time which we have now reached—about 1740—the Mahrattas were at the very zenith of the power.

While the Mahrattas were overrunning the empire from the south, a new disaster came upon Delhi from the north. The famous soldier Nadir Shah, a Turkoman, had seated himself by right of conquest on the Persian throne, and rapidly subdued Kandahar, which had been in possession of the Shahs of Persia since 1648, and Kabul and Ghazni, which were still nominally a part of the Mogul Empire. A man of insatiable ambition, Nadir Shah descended upon the plains of

Invasion of Nadir Shah, 1738-9.

India in 1738. No invasion from beyond the mountains had afflicted India for two centuries, but an attempt which even fifty years before would have met with failure, was now, owing to the moribund condition of the Mogul Empire, crowned with success. The mountain tribes placed no obstacle in the way of

the invader and the Mogul forces were factious and treacherous on the plains of Hindustan. Mohammed Shah surrendered in person, and the Persians entered Delhi in 1739. The occupation of Delhi seemed likely to be a peaceful one until the riotous inhabitants treacherously killed some hundreds of Persian soldiers. The conqueror then ordered a general massacre: the city was given over to fire, carnage and rapine. The worst excesses of Timur were repeated, and 120,000 citizens are reported to have perished. After two months of pillage Nadir Shah returned to Persia laden with plunder; his spoils included the crown jewels and the famous Peacock throne of Shah Jahan. What little authority the Mogul had recently possessed now completely vanished: the blows struck by the invader accelerated the shrinkage of the empire, and encouraged on all sides the formation of independent states.

After the assassination of Nadir Shah in 1747, the Eastern portion of his Empire fell into the hands of Ahmed Abdali the Afghan. Nadir's successful invasion of India invited repetition, and in 1748 Ahmed

Ahmed Abdali's invasion, 1748-1761.

began to march on Delhi. But he got no further than the Punjab when the Mogul army, for once strong and united, fell upon him and scored a complete victory. To prevent renewed Afghan attempts the invaders were bought off with the cession of the Punjab, which they governed with extreme cruelty. Mohammed Shah the Emperor died in 1748, and shortly afterwards the great Nizam of the Deccan brought his career to an end at the age of ninety at least. Ahmed

Ahmed Shah, Emperor, 1748-54.

Shah, the new Emperor, was so troubled with unruly Rohillas that he summoned the Mahrattas to his aid, with the result that they were once again in a position to dictate terms at Delhi. While the Emperor was sunk in debaucheries, the oppressive misgovernment of his vizier, Ghazi-ud-din, was reducing the country to a state of anarchy such as it had never known before. In 1754 a new Emperor, Alamgir II, ascended the throne. A treacherous attack on Lahore

Alamgir II, 1754-9.

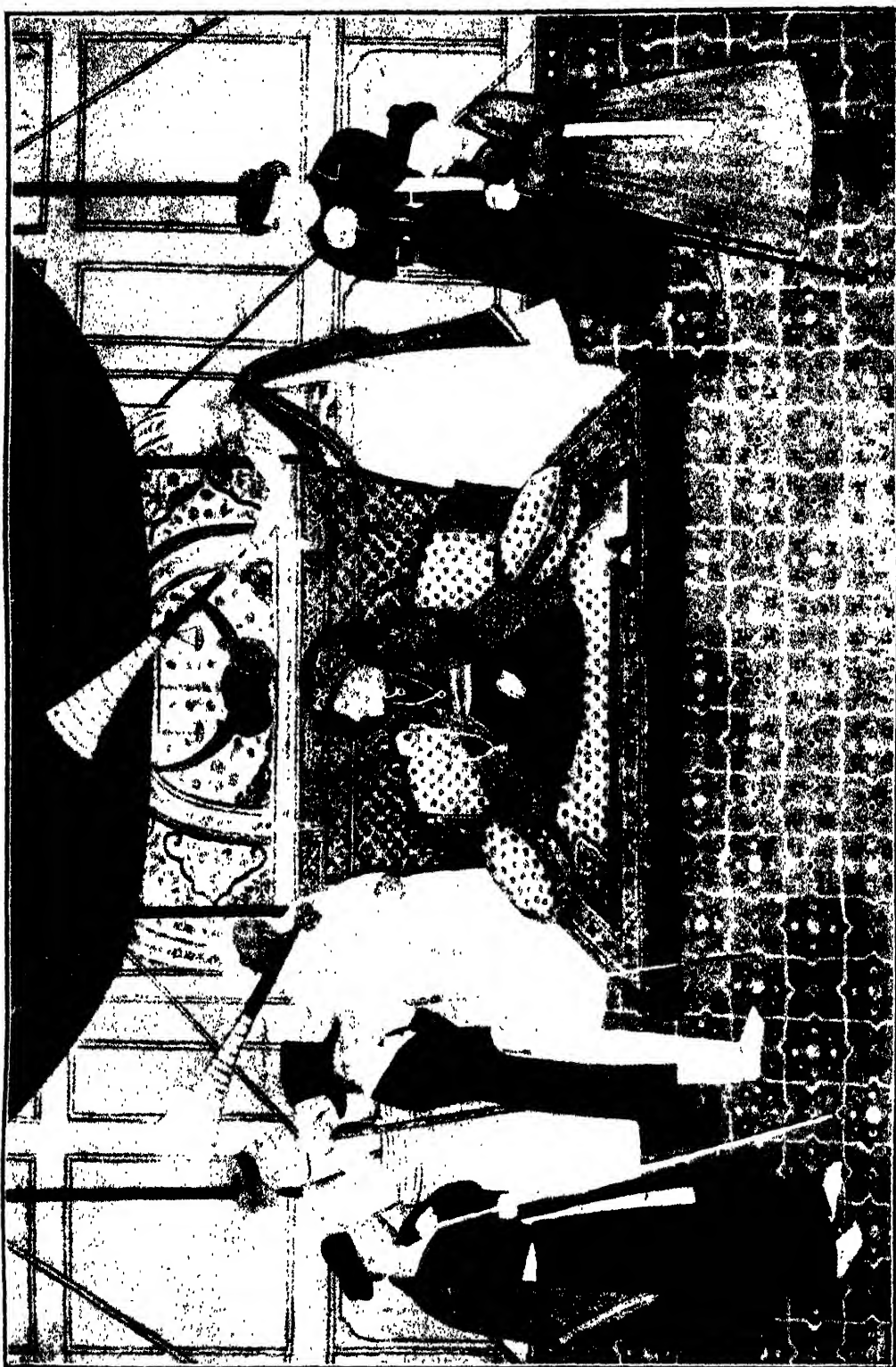
by the unscrupulous vizier brought matters to a crisis. Ahmed Abdali marched on Delhi, and pushing aside all resistance, entered the Capital in September 1757, the horrors of sack and slaughter were repeated, but Ahmed retired the following year. Like Nadir Shah and Mahmud of Ghazni, he aimed at little beyond plunder

Ghazi-ud-din Vizier.

provided he could keep a firm hold of the Punjab. The violence of Ghazi-ud-din had meanwhile raised up such a host of enemies, that he treacherously summoned the Mahrattas to his aid. He cemented the alliance by reconquering the Punjab and setting up a Mahratta governor in that province. Ahmed Abdali promptly re-entered India breathing vengeance. The Punjab was rapidly regained by his forces, and the Afghan army driving the Mahrattas before it, marched on Delhi. Urged to desperation, the ruthless Ghazi now resolved to play his last card. He murdered the defenceless emperor, and set up a puppet in his stead.

Shah Alam, 1759-1806.

But the son of Alamgir came forward and proclaimed himself king, while Ahmed Abdali advanced against Ghazni. The latter wisely fled



SHAH ALAM II.

On the right hand of the Emperor are NAZIM-UD-DOWLAH, MR. SERON, and MIR CHUTAN.

On the left hand are MULAMI-UD-DOWLAH, AHMED ALIKHAN, NAWAB SAIF-UD-DOWLAH and SAYYID RAZI VAKIL.

Near the throne of the Emperor are AHMED KHAN KHAWAS, on the right ; and SHAH HAJI BAHADUR, Daroga of Khawases, on the left.

From a Painting in the Victoria Memorial Collection.

and brought his public career to a close, Abdali again entered Delhi and sought to form a combination of Mohammedans in opposition to the Mahrattas who were openly talking of a new Hindu Empire. It was a case of Islam against Hinduism: the struggle over the phantom Empire was really a religious struggle. The Rohilla Chief and the Nawab of Oudh, though hating the Afghan, united with him to stem the rising tide of Hinduism. The Mahrattas on their side bent all their energies to the task of assembling a monster army, and are said* to have accumulated a quarter of a million of men before the autumn of 1760.

Combination of Mohammedan powers to crush Mahrattas.

For months the armies faced each other in the field of Panipat, and at last on 7th January 1761, the third battle of that name was fought. The Mahrattas had suffered severely from lack of provisions and came half-starved to the fight. They were led by Bhao, a cousin of the Peishwa, under him being Holkar and Sindhia. The wild Hindu onrush at first threatened the Moslems with defeat, but after an exhausting fight Abdali brought up his mailed reserves with such effect that the Mahrattas gave way, and the half-won victory was transformed into a rout. The Mahratta hopes of empire were shattered on the bloody field of Panipat. The Mahrattas remained a great and powerful confederation, but were unable to become the inheritors of the moribund Mogul Empire. Much they had seized from the melting pot, but the empire of all India was not for them. The future masters of India had already, ere Panipat was fought, laid the foundations of their Indian Empire.

3rd Battle of Panipat, 1761.

Mahratta dreams vanish.

Clive had overthrown the French ascendancy in the south; he had also planted British rule in Bengal. Arcot and Plassey were the foundation-stones of the building, and neither would have been laid but for the decay of the Mogul Empire. Nor could the Mahrattas have reached such a pitch of greatness but for Aurangzeb's failures and the feebleness of his successors. The disintegration and anarchy which grew steadily from the death of the last truly great Mogul we have here briefly chronicled. By the middle of the 18th century the so-called Emperor at Delhi had come to be little more than the ruler of a small local territory, and generally not even a personal ruler of that, but a puppet in the hands of some resolute intriguer, the centre of factions which brought continued wars and misery to Hindustan. The history of the early fifteenth century was repeating itself in the eighteenth, but no Lodi came to the rescue. The Empire was clearly doomed to become the prey of the strongest. The Mahrattas were incomparably the strongest and most united power in India, but they had been rudely shattered at Panipat. Their conquerors were discordant units, combining only for the moment and to attain a special purpose. In this crisis of her fate India might naturally expect, to judge from her past—a conqueror from beyond the mountains. Instead she found one from beyond the seas. The British trading company having burked

all European rivals was now embarking on that marvellous series of conquests which culminated in the Sikh wars sixty years ago. The

The British the destined successors of the Moguls.

The motive for these conquests and their nature will be touched upon in a separate portion of this essay; for we have now concluded the history of the Mohammedan India, and are about to enter upon the British period. The Mogul dynasty survived for a hundred years; for fifty it retained a shadow of independence, and for another fifty its representative figured as the prisoner of Delhi in much the same sense as the Pope is dubbed the 'Prisoner of the Vatican.' Through the greater portion of these hundred years it is with the British that the Moguls have to deal. Within four

Virtual end of the Mohammedan period.

years of Panipat the Emperor Shah Alam sought refuge in a British camp.* Whatever he or his successors possessed was held at the good will of the British, and soon few traces were left of the long Moslem domination in India. A new vernacular, a number of exquisite monuments, a few Mohammedan princes, a Moslem minority scattered amongst the Hindu majority in the north and west,—such are the chief legacies of Islam to India.† The Mohammedans built up a mighty Empire, but in the main it was of the usual oriental type, embodying few principles of progress, and therefore doomed to fall as the personal qualities of the rulers deteriorated. Despotism cannot expect longevity, as despots are not all Akbars.

THE BRITISH PERIOD.

(i) *Struggles of the French and English.*

The foundation of the European settlements under the protection of the Mogul Empire was duly noticed in dealing with the reigns of Jehangir, Shah Jahan and Aurangzeb. By 1700 the power of both Portuguese and Dutch on the mainland of India had sunk to insignificance. The English, and their new rivals, the French, were the most important of the alien trading communities in India. At the close of Aurangzeb's reign we glanced at the foundation of the French East India Company, and the rapid progress made in less than half a century. Martin was the founder of Pondicherry, and he greatly strengthened the French position by entering upon friendly terms with his neighbours. By 1701 Martin, as governor of Pondicherry,

Growth of French settlements and influence up to 1741.

"ruled over tracts of land at Masulipatam, Surat, Chandanagar, Balasore, Dacca, Patna, and Cosimbazar." Trade flourished, and his alliance was sought by Indian princes. Soon afterwards Surat was abandoned by the French, and governor Lenoir in 1725 established a new fortified post at Mahé on the Malabar Coast. Dumas, Lenoir's successor, carried on the enterprising policy of Martin.

* After a few years of pensioned ease at Allahabad, the Emperor was resented on his throne by Mahratta aid, but he was nothing but a puppet of the strongest party, whether Mohammedan or Mahratta. With the British occupation of Delhi in 1803, the representative of the Mogul became still more titular and less free.

† See Lane Poole's *Medieval India*, pp. 422-3.

* Probably without truth. But at least they outnumbered the allies. Their artillery also was superior.

An alliance with the Raja of Tanjore brought to the French Karikal, and friendly relations were cultivated with the Nawab of the Carnatic. When the Mahrattas in 1739 took occasion of the Persian invasion in the north to raid the south, the native princes sought protection in Pondicherry against the plundering hordes of the Bhonsla. The Nawab of the Carnatic was defeated, but Dumas by an attitude of bold defence, combined with a judicious present, held Pondicherry safely and received titles from the Nizam in recognition of his services. In 1741 Dumas retired, and Dupleix was promoted from Chandernagor to the superior governorship of Pondicherry.

The British settlements had likewise been growing in power and importance during these years. Most of their settlements had been acquired before the French ones, for the English had been in the field about twice as long as the French. In the Carnatic they held Madras with the subsidiary post of St. David some hundred miles to the south: on the Hugli they held Calcutta or Fort William; on the West Coast, Bombay, besides a number of minor factories as at Surat and Patna. They had lastly declared war against the Great Mogul in 1685, but the preoccupation of the Emperor in the Deccan had saved them from the otherwise inevitable retribution. During the ensuing fifty years their commerce

Character of the two Companies.

had grown apace, and the financial position of the Company was more satisfactory than that of the French Company. The French Company was closely connected with the Government at home, and was a perpetual tax upon the Exchequer of the Bourbons. Had the administration of the French Government in the eighteenth century been intelligent and successful, the state connection might have redounded to the advantage of the French East India Company. But the Home Government grew steadily worse during the reign of Louis XV. so that the embarrassments, vices, and misfortunes of the French regime were reflected in the history of the Indian Company.

The English Company, on the other hand, while it derived its existence from Royal Charter, was more independent of Government control. In France the Directors were nominees of the Crown; in England, the Board of Directors was appointed by and from the Proprietors who held the Company's stock, and was only occasionally subject to Parliamentary pressure. The English East India Company was a rich and enterprising corporation which made annual loans to the Government at home, and used this financial leverage to obtain exclusive privileges of trade and the extension of its charter. While the French Company embarked upon profuse and often unremunerative expenditure at the expense of the Government treasury, the English Company was a source of gain to the Government, and consequently was more likely to receive Government support. Hence, though the Indian Governors of both might be equally enterprising, the attitude at home was more antagonistic to enterprise in France than in England. If by any accident the will to back the respective companies should

The English Company more supported by the Home Government.

become equalised, the present strength of the two in India was fairly equal, but the French had the advantage of the special prestige acquired by Dumas with the natives: so that a contest would turn on the comparative ability of the Home Governments to throw their weight into the scale. As it was, however, the favourable inclination of the British Government was the stronger, and events proved its naval preponderance to be so complete as entirely to cancel any advantage won by the temporary superiority of the French personnel upon Indian soil."*

The struggle which we are about to outline cannot be studied without the reference to contemporary European politics. Probably a contest in India was inevitable, considering what a field the India of 1740 offered to the ambitions of any individuals or communities who had the ability and the resources to seize the opportunity. Still there were special reasons why England and France should be rivals in India. The English Revolution had substituted a rational for a purely dynastic foreign policy, and under the reign of William III England had embarked upon that career of commercial and maritime supremacy which has built up the British Empire. In 1700 Spain still held the monopoly of the trade of the New World, and the war of the Spanish succession was—from the English point of view at least—waged to prevent that monopoly passing into the already too strong hands of France. What is known as the second hundred years' war between England and France was thus begun. Colonial and commercial supremacy were the objects of this secular struggle. Whilst France sought predominance in Europe she also strove to become a great colonial power. But by diverting her energies into two channels, she failed in both designs. England pursued her maritime and colonial ambitions with a more single aim, and the result was complete success. By 1763 the French had been defeated both in America and India, and though the American war of independence brought her some small revenge, Napoleon's gigantic struggle against the mistress of the seas ignominiously failed and confirmed the colonial and commercial supremacy of Britain. The contest in India was thus part of a larger whole, its progress depended largely on the European situation, and the ultimate result was very considerably due to the course of affairs at home.

Relation of rivalry of French and British in India to the European struggle.

That European traders, whether French or English, should have sought to build up a territorial power in India is not nearly as extraordinary as it seems. As long as the Mogul Empire retained its strength, no such process could be dreamt of, but no sooner had the decline of that Empire begun, than adventurers came forward on all sides and founded kingdoms. War, misrule and disorder were rife throughout the Peninsula, and the strongest gained the day. The prevalent chaos rendered it necessary for the trading companies completely to change their policy; they had need to arm and build up dominion for themselves, otherwise they were unlikely to survive the *melée*. The British conquest of India began in self-defence. Attacked

Why the Europeans were driven to interfere in Indian politics.

first by the French in the south, then by the native power in Bengal, they took up the gauntlet, and worsted both enemies in turn, but not without the acquisition of substantial territory. Once given a territorial lordship, they could not keep clear of the troubled politics of the time, but were drawn more and more into wars and alliances with the native dynasties, until their authority overspread the peninsula by virtue of superior discipline, resources and personnel.

The marvellous progress of the British arms was made possible just as some interference had been made necessary by the unsettled state of the country. India

Why the British acquired the Mogul heritage.

has never been more disunited and devoid of a single nationality than in the eighteenth century. Hindus

and Moslems fought against each other and between themselves. Native troops drilled by Englishmen attacked other native troops with as great an alacrity as Germans would attack Frenchmen. The conquest of India was then no marvellous achievement of a handful of Englishmen, but a natural and progressive development, the survival of the fittest in an age of disturbance and blood, by means of the weapon readiest to the hand, armed and disciplined levies of native troops. These considerations will receive emphasis again and again as we pursue the course of our narrative from the earliest British successes to the final consolidation of the Empire. Finally, it might be remarked that the acquisition of the lordship of India by a Company was less remarkable than the acquisition of an Empire by an individual. Throughout Indian history individuals have risen to greatness by adroitly making use of jealousies and factions. The rise of Haider Ali, or of Sindhia, or of Holkar, was more wonderful and demanded more of the special favour of fortune than the rise of the East India Company.* A Company is a corporation, and as such not subject to the risks with which an individual is surrounded. It is not liable to be killed in battle or to die of fever. Its operations are continuous, not limited by a single life. Thus the achievements of individual servants of the Company were not cancelled by their death. When therefore it is remembered how many heroes the Company produced, and that their deeds went to swell the general account, the ultimate triumph of the English East India Company appears far more explicable, far less supernatural than it has often been represented.

Dupleix, who was appointed Governor of Pondicherry in 1741, was a most remarkable man. Gifted with genius and foresight, he elaborated vast schemes of Indian dominion and devoted himself to their execution with extraordinary, if obstinately unwise, persistence. He it was who first started on the right road towards European conquest in India. The rivalries to the natives and the instability of oriental dynasties, so forcibly emphasized at the time, suggested to Dupleix the idea of making the French the determining factor in these rivalries, and thereby building up for themselves a territorial dominion. To ac-

Dupleix and his schemes.

complish this end the English must be driven out, and to drive them out Dupleix set himself to discipline native troops and organize them into regiments on the European model. The device was obvious enough, but Dupleix was the first European to conceive it, because he was the first to cherish schemes which rendered such aid imperative. To assist himself in these schemes he embarked even more lavishly than Dumas in native alliances, and met them with their own weapons, astuteness and ostentation. In 1744, England who was already at war with Spain over Jenkin's Ears, and had recently come to the assistance of Austria in her succession war, declared war directly on France. But the home authorities of both Companies, anxious for dividends, instructed their

First act of the struggle between English and French in India.

Governors to maintain peace in India. Neither Dupleix

at Pondicherry, nor Morse at Madras, acquiesced in this recommendation. Dupleix had secured the protection of the Nawab of the Carnatic, Anwar-ud-din, and was the first to strike. Under request from Dupleix, La Bourdonnais arrived before Madras in 1746 with a squadron from Mauritius, the French naval base in the East. Madras surrendered, under promise of restitution on payment of a ransom. Dupleix, however, baffled in his hopes of retaining Madras,

quarrelled bitterly with the Admiral, who withdrew on the approach of the monsoon and was shortly afterwards imprisoned in the Bastille for disobedience to Versailles. Dupleix being now left to his own devices, retained Madras, promising however to hand it over to the Nawab. But as unwarrantable delay seemed to prove the insincerity of the promise, Anwar-ud-din despatched an army to compel obedience.

The battle of St. Thome which ensued is memorable as the first occasion on which

Battle of St. Thome.

Europeans decisively showed their superiority over Indians both in courage and military skill. It also proved the value of applying European discipline to native levies. In this action 230 Europeans with 700 sepoys drilled on the European model and under European officers, defeated 10,000 purely native troops, who like most armies of the native princes, were little more than an undisciplined rabble. Though Madras had fallen, Fort St. David

Siege of Fort St. David.

under a great commander, Major Stringer Lawrence, held out vigorously against all attacks. An

English fleet appeared in 1748 and besieged Pondicherry, but without success. Meanwhile the treaty of Aix-la-Chapelle had brought the European war to an end. England had taken Louisberg in America from the French, and by the terms of the treaty it was restored in return for Madras. The curtain thus fell upon the first act of the drama. The combatants were technically in the same position as before the conflict, but the success of the French had incomparably strengthened their prestige and their hold upon the native mind.

In the second Carnatic War Dupleix had wider opportunities of putting his theories into action. The war arose over a couple of disputed native

Peace of Aix-la-Chapelle, 1748.

* Seely. Expansion of England, Part II, Lecture I

successions, but eventually became a life and death struggle between the French and the English. Into the endless entanglements and intrigues which accompanied the progress of the war, it is impossible to enter in any detail, but a brief outline of the war, its causes and results, will be instructive. Dupleix, as in the previous

Dupleix's reasons for entering on the second Carnatic War.

war, was the first to move, considering and probably rightly, that in order to consolidate French commerce and far more to establish French dominion, the English must be driven out of the Carnatic. Even if this had not been so, it was still necessary, he argued, to offer his assistance to some of the contending native princes, for otherwise the assistance of the English would have been obtained, and this would have dangerously increased their power. The offensive was forced upon him by the circumstances of the case. In 1740 the great Nizam-ul-Mulk died and Haiderabad witnessed a

Disputed successions in Haiderabad and Arcot provide opportunity.

disputed succession. But Dupleix's immediate object was to obtain as Nawab of the Carnatic a man who, instead of being the powerful suzerain of Pondicherry, should be subservient to the ambitions of the French. Anwar-ud-din was too recalcitrant, but a suitable creature was found in Chanda Sahib, the chief representative of the late and popular ruling family, which had been supplanted by Anwar-ud-din at the instance of the Nizam in 1740. King-making in the Carnatic was then Dupleix's immediate aim; his ulterior purpose was the establishment of a strong French party at the Court of Haiderabad. The death of the Nizam in 1740 created his opportunity. His son Nazir Jung succeeded, but the throne was claimed by Muzaffar Jung, a grandson of the deceased ruler. Muzaffar sought in vain the aid of the Mahrattas, but Chanda Sahib with whom he happened to form a friendship

Alliance between Dupleix, Muzaffar Jung and Chanda Sahib.

urged the invitation of French assistance. Dupleix readily acquiesced, and the triumvirate began their operations by falling on Anwar-ud-din, whom they defeated at Ambur in 1749. The old Nawab was killed and Chanda Sahib was proclaimed Nawab of the Carnatic. This battle is interesting as marking the first success of Bussy, a Frenchman who attained within a few years extraordinary power in India. He was a most skilful leader, and commanded the French forces at Ambur.

Threatened with this dangerous combination, which was bound eventually to be turned against them, the English prepared to take the field. They sent home urgent appeals for help, and meanwhile met Nazir

Battle of Ambur, 1749.

Jung's request for aid by a contingent under Major Lawrence. Assistance was also sent to Mahommed Ali, the son of Anwar-ud-din, now proclaimed Nawab by Nazir Jung. For the moment events went favourably with the English and their allies. Chanda Sahib wasted time in a futile attack on Tanjore. A Mahratta force came to support Nazir Jung, and the opponents were completely routed near Pondicherry. Chanda Sahib fled southward, and Muzaffar fell within

a few months into the hands of Nazir Jung (1749); however, the battles were again turned. Dupleix by a process of astute intrigue had nearly won over Nazir Jung to his terms, when the assassination

Rival coalition of English, Mahrattas, Nazir Jung and Mohammed Ali.

of the Nizam placed the French protégé, Muzaffar, on the throne (Jan. 1750). As meanwhile Mohammed Ali had quarrelled with the English, and was subsequently defeated by Bussy at Punar, Chanda Sahib was restored to the throne of Arcot, and Dupleix had the satisfaction of seeing both his allies triumphant. That Muzaffar died after enjoying his power but for one single month mattered not at all, for Bussy secured the succession for his own nominee, Salabat Jung, a younger son of the old Nizam-ul-Mulk. Bussy now estab-

Dupleix and his allies triumphant, 1750-1.

lished himself at Haiderabad with a body of French troops, and he rapidly realized for himself the position of a dictator in the Deccan. But Dupleix's lord-paramountcy was destined to be short-lived, and before the year 1751 was out, the tide began to turn. In July 1751 the English were in a critical situation, clinging supinely to their forts at Madras and Fort St. David, while French influence overspread the Deccan. But the new Governor, Mr. Saunders, inaugurated a period of intense activity. He resumed negotiations with Mohammed Ali, who was now holding Trichinopoly against Chanda Sahib's superior forces, and he despatched reinforcements to Mohammed's aid. Above all, he rapidly altered the complexion of affairs by entrusting Robert Clive with an independent command. Clive had been in India six years and was still under twenty years of age. Beginning his career as a 'writer' or junior clerk of the Company, he had volunteered at the outbreak of hostilities five years before and had distinguished himself in the defence of Fort St.

David during the first Carnatic War. Now, when desperate efforts to relieve Trichinopoly seemed in vain, Clive suggested a bold diversion on Arcot, the capital of the Lawat. Should the attack be successful, the pressure on Trichinopoly would almost certainly be lightened. Events proved the truth of these predictions: with a terribly insufficient force Clive started on the road to fame. He had 200 Europeans and 300 sepoy's with only eight officers, only two of whom had smelt powder. But the speed of his movements took the garrison of Arcot by surprise. It fled panic-stricken, and the fort was occupied without a blow. Clive

Robert Clive saves the situation.

instantly put the untenable fortress into a state of defence, surprised and defeated the fugitive garrison, which had encamped outside, and calmly awaited the forces which Chanda Sahib was certain to despatch. Trichinopoly was relieved by this audacious attack upon the capital, for Chanda Sahib sent a powerful force under his son to attack the English adventurer. This force was swollen to 10,000 men before it reached Arcot. For fifty days Clive, deprived of provisions, defended the crumbling walls of Arcot against a foe twenty times his superior in number. The heroic defence induced a Mah-

ratta Chief to bring assistance, with the result that not only was the siege raised, but Clive was enabled to sally forth and beat the enemy in a couple of pitched battles (1751). The defence of Arcot completely turned the scale. Lawrence now joined Clive with reinforcements, and the English proceeded to the relief of Trichinopoly. The French and their allies were forced to relinquish the siege: they were then manœuvred into an impossible position, and surrendered unconditionally: finally, Chanda Sahib was murdered, and Mohammed Ali, the British protégé, became incontestably Nawab of the Carnatic; Dupleix indeed contrived to have himself nominated as Nawab by the Nizam through Bussy's influence.

Further successes of Clive.

Relief of Trichinopoly, 1752

were at peace in Europe. Louis and his advisers had no wish for another European war, and the superiority of the English sea-power was a cause of legitimate fear to France. Taking all these reasons in combination, the French ministry were amply justified in ordering a return to a peaceful commercial policy in India, and in making good that decision by the recall of Dupleix himself. The great French empire-builder returned home to be treated with ignominy and to die in poverty ten years later, and the new French Governor concluded a treaty of peace with the English in India, on the basis of abstention from territorial aggrandizement. It is clear that the wider interests of the French nation required a change of policy in India, and it is equally clear that so long as

Reasons for this action.



ROBERT LORD CLIVE.



JOSEPH FRANÇOIS MARQUIS DUPELIX.

and continued the struggle with great activity, but the events of 1752 had made plain the ultimate result. Bussy was powerful enough at Haiderabad, and had received a grant of the Northern Sircars for the payment of his troops. But he constantly urged Dupleix to make peace, as the Carnatic was steadily falling under the influence of the English, and French prestige was sinking into nothingness. At last the authorities at Paris intervened. Millions of francs were being disgorged without effect, and the French Company was

Dupleix recalled, 1754.

confronted with financial ruin. Dupleix attempted to disguise the real condition of his finances, and lavished in abundance from his private store. Diplomacy came to the aid of finance in dictating a cessation of hostilities. The English Government urged by their Company, were remonstrating against the continuance of this struggle while the two nations

England held command of the sea. Dupleix's schemes, however brilliant, were doomed to ultimate failure. France, situated as she then was in Europe, could not have supplanted England in India, and therefore it is untrue to say that her ultimate failure resulted from the recall of Dupleix when he was on the threshold of success. Dupleix was not on the verge of triumph: the genius of Clive had arisen to thwart his schemes, and the tide had distinctly turned against him. French historians are certainly justified in attacking the French Government under Louis XV. It was notoriously bad, and all along showed itself incapable of consistently supporting the efforts of Frenchmen in India. But the single act of Dupleix's recall did not destroy French hopes in India. If the English in the Carnatic were not superior, they were at least more strongly and consistently supported from home, and

Explanation of Dupleix's failure.

they were backed by a superiority of sea-power which in the long run determines the success of all colonizing schemes.*

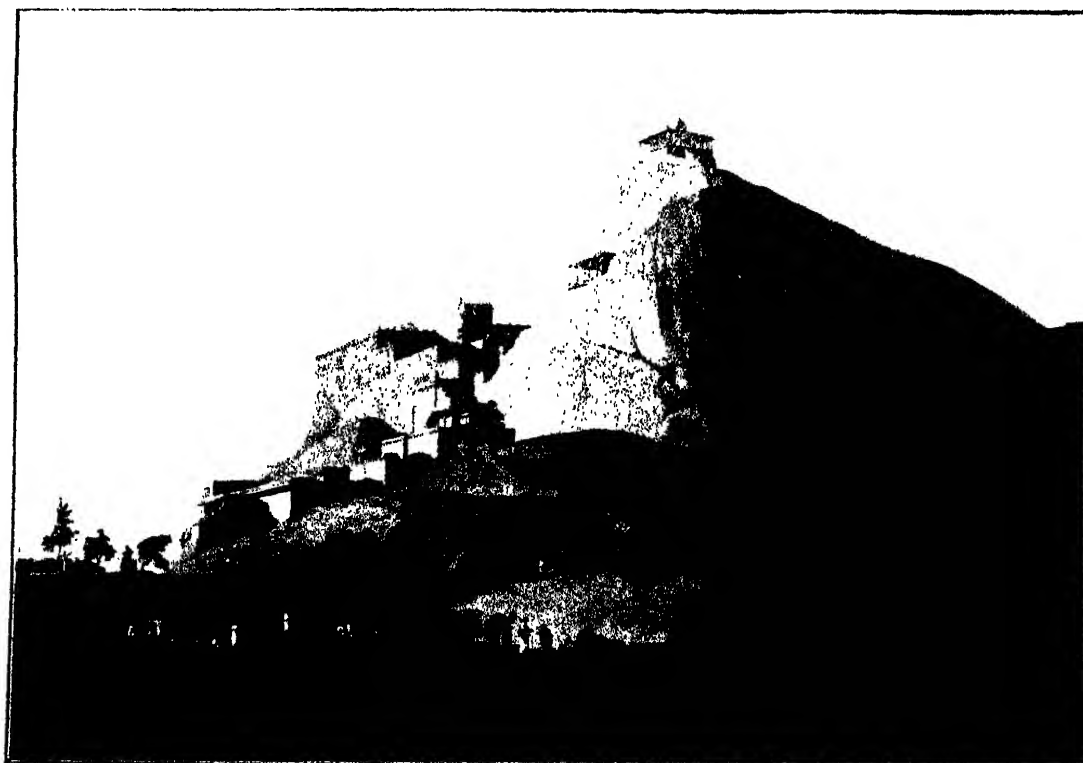
Despite the treaty of peace in 1754 desultory skirmishing continued to take place, and it seemed as if French and English could not live peaceably side by side upon the Coromandel Coast. Then in 1756 came the outbreak of the seven years' war in Europe.

France unwisely joined the coalition brought together by Maria Theresa of Austria to partition the dominions of her arch-enemy, Frederick the Great of Prussia. England sided with Frederick, and the last act in the long struggle between France and England now began. As before, Europe was

preliminary to any enduring French success in India. Lally was the son of an exiled Irishman. A man of unquestioned valour, he was, in the words of the French Minister D'Argenson, "a hot-headed, stiffnecked martinet," so overbearing and tactless, that he was constantly hampered by the insubordination of his own men, and the rage of natives whose most sacred prejudices he contemptuously ignored.

Lally arrived in India in the spring of 1758. Needless delays in fitting out the expedition irremediably lost France the fairest opportunity. In 1756 occurred the attack upon the English in Bengal by Suraj-ud-Dowlah, and the best troops of the Company had been despatched under Clive to the assistance of Fort William. The

Lally's Expedition to India and its object.



SOUTH-EAST VIEW OF THE ROCK OF TRICHINOPOLY.

From a painting by Thomas Daniells, 1798.

not the only scene of activity, for the war was carried into India and America. A regular military expedition under the Comte de Lally was despatched to India. The object of the French Government being rather to foster commerce and to harass the English than to found a dominion. Lally received instructions to uproot the English settlements, but not to penetrate inland, or to participate in the quarrels of the native princes. That is, he was definitely warned against reverting to the system of Dupleix, and there is no doubt that the destruction of the English must have been the

Madras President and his Council, knowing as they did that a French expedition was under preparation for India, deliberately and with rare patriotism denuded themselves of protection in order to save their countrymen in Bengal. Had Lally arrived twelve months earlier than he did, the English in the Carnatic would have been sore beset. But by April 1758 the Black Hole had been avenged, Plassey had been won, the French had been expelled from Bengal, and the English had become masters of the province.

Clive was now able to assist Madras materially in men and money. Lally's first act was to besiege and take Fort St. David. As the civil authorities of Pondicherry

* See *Mahan's Influence of Seapower on History*, and Lyall's *British Dominion in India*, Chs. V & VI.

could not, or would not, provide the necessary funds. Lally sought the sinews of war by an attack on the Raja of Tanjore, a debtor of the French Company. Recalled by the arrival of a British fleet before his operations were completed, he in vain urged the French Admiral to attack the British ships, and then proceeded, but without sufficient supplies, to his ultimate goal, the siege of Madras. Bussy was summoned from Haiderabad, and not wishing to risk the penalty of insubordination, obeyed the summons, thereby risking the loss of his position, already assailed as it was, at the Nizam's Court. The year 1759 brought nothing but disaster. Madras resisted a two months' siege, and a British squadron arrived in the nick of time as Lally was about to storm the town. He retired hastily to Pondicherry, leaving many guns behind (Feb. 1759). About the same time Clive's genius was asserting itself in the north. Bussy's departure from Haiderabad had withdrawn his support from the Northern Sircars, and an expedition from Bengal under Colonel Forde rapidly brought them into English hands. Masulipatam, the most important stronghold of the district fell, and the Nizam, deserting Bussy, made an alliance with the British, to whom he formally handed over the territories in question. This was the penalty paid by Lally for withdrawing Bussy from Haiderabad. The value of Clive's position in Bengal was again felt the same year. A brilliant officer, Colonel Eyre Coote, was sent down to take charge of the operations in the Carnatic. Coote carried the Fort of Wandewash, and Lally in his attempt to recapture it, had to fight the battle of that name. The battle was hotly contested, and was notable from Lally's attempt to lead a charge of European cavalry.* But the victory of Coote was complete and Bussy was captured. Wandewash was a most fatal reverse to the French. They could no longer hold the open country, and their strong places were lost one after another. No French fleet assisted the despairing efforts of Lally, but a British squadron arrived to help in the blockade of Pondicherry. Insufficiently garrisoned and ammunitioned, the capital of the French settlements surrendered in January 1761 and Lally himself was taken prisoner. The humiliation of the French was complete. Though by the peace of Paris in 1763 their trading stations were restored, they were dismantled and rendered unfit for military purposes. French prestige was ruined and the English were in undisputed possession of the field. By conquests in India, as in America, the power of England had reached its apex in 1763. The French East India Company was dissolved in 1770. During the American war of Independence the French Government attempted a diversion upon the Indian coasts in concert with Haider Ali, but the French lacked harbours or roadsteads, and British power was too firmly con-

Lally takes Fort St. David, 1758.

But fails in siege of Madras, 1759.

The English capture Northern Sircars, 1759

Battle of Wandewash, 1760.

Capture of Pondicherry, 1761.

Peace of Paris, 1763.

Complete overthrow of the French.

* It was first time that European cavalry had been employed in India.

solidated in the north to fear any purely naval attack in the south. Again, twenty years later, Napoleon's intrigues with our enemies in India caused difficulties and heart-searchings, but any direct invasion by the autoerats of France was rendered impossible by the lack of sea-power.

It was Britain's command of the sea which had turned the scale in the seven years' war both in India and in America. Add to that the immense importance of the recent conquest of Bengal, whence sinews of war could be drawn; the presence of Clive at Calcutta; and the discovery of a talented commander in Eyre Coote, and we shall not be at a loss to account for the final overthrow of French aspirations in India. Had France devoted her energies solely to colonial conquest, her overthrow might have been more doubtful. But the European war, itself a failure, was the death-blow to her hopes abroad. No nation can afford to scatter her energies, least of all a nation so miserably insolvent and misgoverned as the France of Louis Quinze. France still retains a few settlements in India, chief of which is Pondicherry. But they are peaceful commercial stations, not very productive to France, and in no way dangerous to England. From 1763 onwards the task of the British in India was to gain ascendancy over the native powers. The last European rival had been overthrown, and the native aspirants for dominion were either too weak, or too disunited, to make doubtful the ultimate triumph of British arms. How the East India Company were led, often against their will, generally in self-defence, to embark on extensive schemes of Indian conquest will be related in the following sections.

Reasons for their failure in India.

(ii) THE CONQUEST OF BENGAL.

It was in Bengal that the British first directly waged war upon a Native State. In the South of India the enemy had been a European power, and the British had merely imitated French methods in order to overthrow the French. They had assisted one or other of the rival factions of certain Native States, and when successful had come out of the contest as the power behind the throne in the Carnatic. But they had declared no war upon any unquestioned Native authority in order to acquire dominion. In Bengal they were led by the force of circumstances to declare war upon the legitimate ruler of the State, but although the act led eventually to dominion, it was only undertaken in revenge for insults received. Not only was the conquest of Bengal historically the first direct British conquest of a Native State in India, but geographically it was the first step towards extended dominion. Bengal was the most indefensible of Indian frontiers, while it was the richest and most covetable property. It also afforded the easiest approach to the great northern plains and the capitals of the Mogul Empire. For a maritime people it was the most useful base in India. Hindustan was in the middle of the eighteenth century so disunited and politically unstable that the British might have marched to the conquest of the

Bengal the easiest gate of approach for the conquest of India.

Mogul Empire—such of it as remained—and Oudh, almost directly after their conquest of Bengal. But for sufficient reasons Clive decided against such a policy. Bengal, however, remained in British hands, though nominally under native rule. How and why this domination was brought about must now be briefly recorded.

While the first and second acts of the Anglo-French duel were taking place in the Carnatic, the French and British factories at Chandernagore and Fort William remained amicably side by side, prevented by the strong hand of Aliverdi Khan from extending their conflict to Bengal. But in 1756 Aliverdi was succeeded by his grandson and adopted son Mirza Mahmoud, commonly known as Suraj-ud-Dowlah. This youth of seventeen years, says Orme, "had discovered the most

Suraj-ud-Dowlah, Nawab of Bengal, 1756.

vicious propensities, at an age when only follies are expected from princes. . . . It was one of the amusements of his childhood to torture birds and animals; and taught by his minions to regard himself as of a superior order of beings, his natural cruelty hardened by habit, rendered him as insensible to the sufferings of his own species as of the brute creation; in conception he was not slow, but absurd; obstinate, sullen, and impatient of contradiction; but, notwithstanding his insolent contempt of mankind, innate cowardice, and the confusion of his ideas, rendered him suspicious of all who approached him, excepting his favourites, who were buffoons and profligate men, raised from menial servants to be his companions; with these he lived in every kind of intemperance and debauchery, and more especially in drinking spirituous liquors to an excess, which inflamed his passions, and impaired the little understanding with which he was born.* Add to these defects that he was extraordinarily avaricious and vain of his authority, and it is easy to see that the British in Bengal might expect trouble. By the Imperial Firman of 1717 the British enjoyed trading rights in Bengal which the French and the Dutch did not possess. These rights had been, on the whole, respected by Aliverdi Khan, but the new ruler neither intended to respect the British nor his nominal master, the Great Mogul. He, immediately after his accession, ordered the British to demolish their fortifications, but trusting rather to force than diplomacy, followed up the demand of marching upon Calcutta. The fort, known as Fort William, was ill-suited for defence and incompetently held. It rapidly fell into the hands of the despot, who celebrated the success by the ghastly tragedy of the Black Hole.* Before proceeding to tell of the punishment which befell him for the atrocious act, it is desirable to pause and inquire what, if any, show of reason, Suraj-ud-Dowlah had for declaring war upon the British.

The general cause of the war may be described as discontent of the Hindus with the Mohammedan government under whose tyranny they groaned.

* Orme's *Hindustan*, Bk. VII. Orme's account of the conquest of Bengal and the wars in the Carnatic is very detailed and valuable.

† For a vivid account of this tragedy see Macaulay's essay on Clive.

Hindus looked to the Europeans for a deliverer, thereby exasperating Suraj-ud-Dowlah against the British, who were the most powerful Europeans in

Causes of the war.

Bengal. The particular reasons animating the despot in his attack were vanity and avarice. He imagined himself slighted by the British, and the exaggerated reports of their wealth roused his greed. His pretexts were (a) that the British had made fortifications contrary to the established laws of the country. (b) That they had abused the privileges of trade granted by the Firman. (c) That they had protected his subjects against him. The second of these accusations contained some show of truth, and in the first matter the British had undeniably disobeyed the orders of Aliverdi

and his successor, but rather as a protection against the French and the Mahrattas than in defiance of the Native Government. The

Nawab then had some show of reason, "but where he displayed his folly was in resorting to such violent means for reducing to submission a useful people, whom his grandfather had always been able to manage by much milder measures, and in publicly exhibiting his own contempt for law and order by claiming the right to abrogate the Firman granted by his own master, the Emperor of Delhi."* That is, he threatened to expel the British completely from his country if they did not instantly pull down their fortifications, and by his seizure of Calcutta he vainly hoped that they would take flight never to return. But his rashness and injustice speedily recoiled upon his

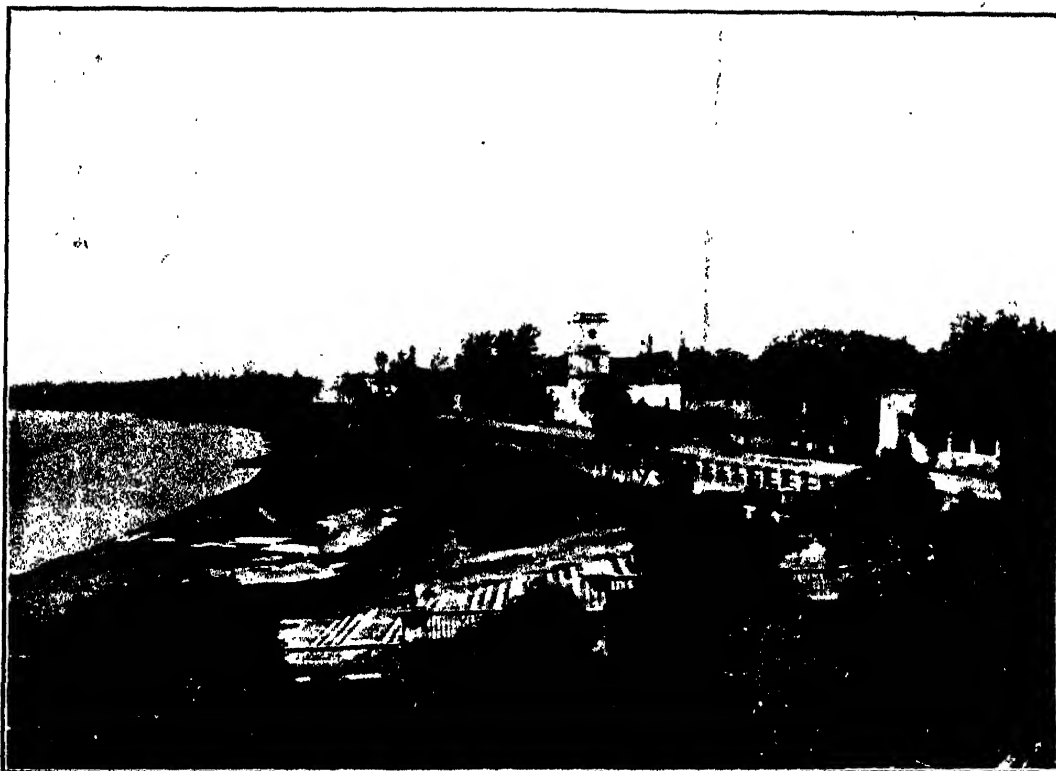
The Nawab succumbs to the punitive expedition from Madras, Jan.—Feb., 1757.

own head. An expedition under Clive and Admiral Watson was despatched from Madras, although that colony could ill spare either.

Fort William was recovered, and the Nawab's forts in the neighbourhood were captured, while the forces of the prince scattered before the invaders. Suraj-ud-Dowlah thereupon collected a great army and advanced on Calcutta, only to retreat to his capital at Murshidabad after an indecisive engagement. He then made a treaty with the Company restoring their possessions and promising compensation. But he secretly entered upon intrigues with the French at Chandernagore and with Bussy at Haiderabad. Clive

under pretext of the recently declared Anglo-French war proceeded against Chandernagore, captured it, and thereby warned Bussy off from intervention in Bengal. Still the Nawab's intentions were manifestly sinister, and something more had to be done to secure the safety of Calcutta before Clive and his troops could return to Madras to face the imminent arrival of Lally. At this crisis the Nawab's disaffected ministers and courtiers solved the difficulty by proposing the deposition of the tyrant with British aid. Mir Jaffar, the Commander-in-Chief, was the prospective candidate of the conspirators. Clive eagerly entered upon communications with the plotters through a wealthy and unscrupulous Hindu, Ami Chand, known to Europeans as Omichand. This

* Bengal in 1756-7. Indian Record Series. S. C. Hall, Introduction.



LES GRANDS ESCALIONS DU BORD DU GAGNE. CHANDERNAGORE, Looking South.



QUAI DUPEIX, CHANDERNAGORE. IN 1890. Looking North.

Photo by T. Ochme.

crafty intriguer, as greedy of wealth as the Nawab himself, threatened on the eve of the action to reveal the plot unless a sum equivalent to a million sterling were guaranteed him. But his silence was indispensable, and his demand was more than audacious. Hence Clive, with the approval of his colleagues save one, stooped to meet Omichand on his own ground. Then took place the famous affair of the double treaty.

The affair of Omichand, a no more disgraceful act, and far more defensible in its motives than the double Treaty of Dover executed by Charles II and his cabal to deceive his own subjects. The traitor was shown a red document containing the terms of the treaty and the promise to pay him blackmail. Admiral Watson's signature - for he refused to sign and authorised the others to do as they pleased - being counterfeited at the base. The real treaty on white paper omitted the obnoxious clause and was not made known to Omichand.

Matters being thus arranged, Clive changed his friendly tone towards the Nawab into one of thinly veiled hostility. Announcing his approach to Murshidabad to consult the Durbār on the subject of British complaints not yet satisfied, he marched upcountry with his army, and the Nawab set forth to meet him. Clive had only 1,100 Europeans, twice that number of sepoys and ten guns. Should the conspirators, and above all Mir Jaffar with his troops, break their promises, the small British force might be defeated, and defeat meant annihilation. But retreat meant the abandonment of British security in Bengal, and Clive marched on against the advice of his Council of war.

The forces met at Plassey, fifty thousand men against three thousand. In the historic engagement which followed (June 23) Mir Jaffar played no part, but the odds were still ten to one, and the Nawab was well served by a band of French artillery men. Clive's tactics were at first defensive. Next an advance was made against the French battery, which was thrown out of action. The battle concluded with a general British advance, and an assault upon the enemy's fortified camp, followed immediately by their total rout. The Nawab had himself fled earlier in the afternoon, and the flight of his army followed so rapidly on the British advance that the casualties were but five or six hundred on the Nawab's side, only seventy on the British. The worthlessness of the Nawab's troops was significantly proved: they were little more than a rabble of hired free lances, no more devoted to their paymaster than the Italian *Condottieri* of the 15th century, and far more incapable on the field of battle. It was not until the Mahrattas and the forces of Haider Ali were encountered that the British met with foemen worthy of their steel.

Mir Jaffar, despite his failure to give active assistance at Plassey, was now elevated to the *Masnud*, and the *ex*-Nawab was murdered by Mir Jaffar's son. The British were virtually lords in Bengal, and Clive's prestige was undisputed throughout the country. The Emperor at Delhi was at the time in the hands

of Ahmed Abdali* and could not interfere; the French had no power of opposition in Bengal, and the natives were delighted. For Clive, now appointed Governor of Calcutta, protected the people

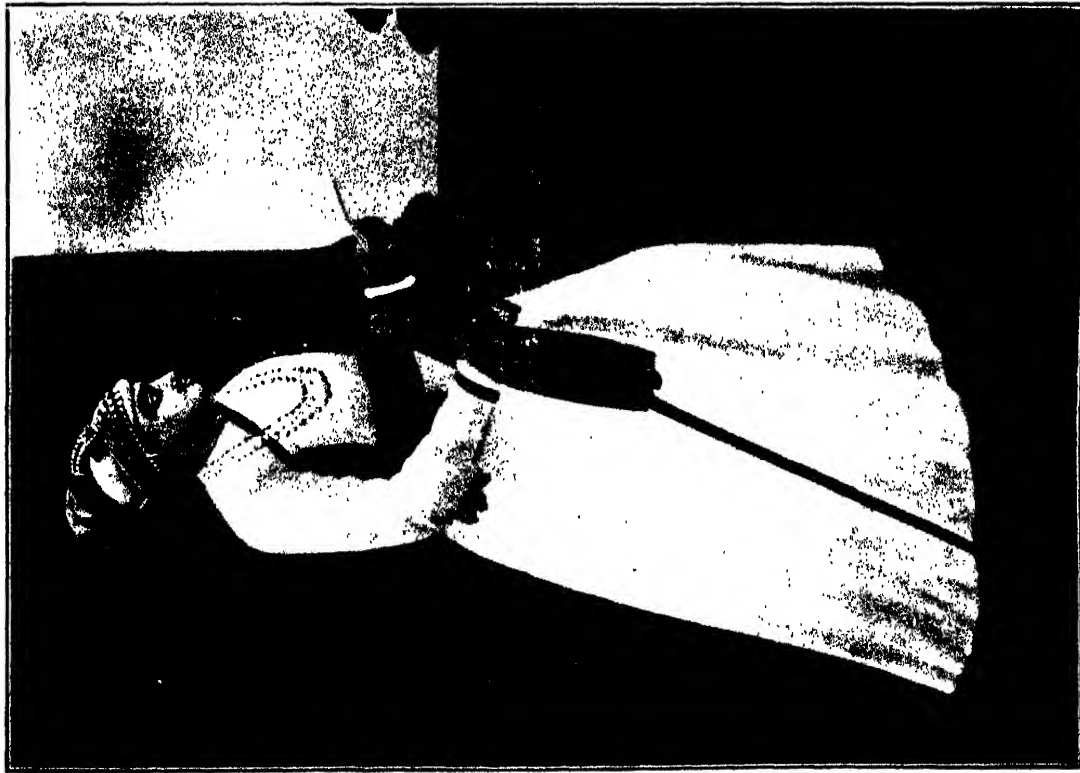
against the rapacity of the new Nawab and kept the realm in peace. A threatened invasion of the Nawab of Oudh at the end of 1757 was quelled by the mere terror of Clive's name; when it was renewed in 1759 in conjunction with Shah Alam, the heir of the Mogul, Clive marched 400 miles in 23 days to the relief of Patna, and quickly scattered the foe; when again the Dutch, following upon intrigues with the perfidious Mir Jaffar, made a hostile demonstration on the Hugli, Clive promptly contrived their overthrow by land and sea. The Dutch at Chinsura, like the French at Chandernagore, never again hampered the British in Bengal. With all these pre-occupations in the newly-acquired province Clive could afford to despatch expeditions to the Northern Sircars and to Madras. Colonels Forde and Coote, together with the men and supplies furnished from Bengal, rendered incalculable service in the final struggle against the French.

all his exertions Clive needed rest, and returned to England early in 1760. He was away five years and his absence from Bengal during that period was infinitely regrettable.

It has been related how the western frontier of the province, that is, the part of Behar round about Patna, had been threatened by the appearance of the Mogul heir-apparent in 1759. Immediately afterwards, on the murder of his father by Ghazi, Shah Alam became Emperor. But the presence of Mahrattas in the north rendered his capital insecure. While the campaign which culminated in Panipat was deciding the fortunes of Northern India, Shah Alam attempted to found a basis for his power in Behar and Bengal, and started collecting revenue in Behar. Whatever theoretical right he had, Mir Jaffar with the support of the English determined to oppose him. The army of the Nawab and a small British contingent marched west and defeated the Emperor in a couple of engagements (1760). Reinforced by a hundred Frenchmen under an adventurer, the Chevalier Law, Shah Alam then laid siege to Patna, but a small body of European infantry from Murshidabad utterly routed the Imperial army after a cross-country march of extraordinary rapidity. Still another defeat was necessary before the persistent Emperor was compelled to evacuate the country. Again in the following year he returned to the encounter, but was overthrown at Suan or Behar, and allowed to depart, weary of the hopeless struggle, into Hindostan. Delhi was now cleared of Mahrattas, but the unfortunate Emperor fell into the hands of the ambitious Nawab Vizier of Oudh, who kept him for some

time.

* Technically President. Hence the term 'Presidency' for the territory under the authority of the President and his Council.



SURAJ-UD-DOWLAH.



NAWAB NAZIM MIR MAHOMED JAFFAR AND HIS SON NAWAB MIRAN.

years in honourable confinement.* The ruler of Oudh, Shuja-ud-Dowlah by name, was himself shortly brought into contact with the growing British power. After

Mr. Kasim's alliance
with Oudh, 1763.

Kasim, his successor, had also quarrelled with his masters and had sanctioned a brutal massacre of Europeans at Patna. Fleeing from the avenging columns, he took refuge in Oudh, and obtained the support of the Nawab Vizier. The British appeared shortly on the frontier and after some indecisive operations and the occurrence of the first sepoy mutiny, the allies were signally defeated

Battle of Buxar,
1764.

at Buxar in October 1764. The British Commander, Major (afterwards Sir Hector) Munro followed up the victory by the capture of Allahabad, where the Emperor, now released from his vassalage to Shuja-ud-Dowlah, was installed as a British pensioner. The Nawab Vizier underwent a final defeat at Cawnpore in the following year, and the Mahrattas under Holkar, who were assisting him, were driven across the Jumna. These campaigns contain some of the most brilliant exploits in the British military annals, and they could easily have been followed up by the complete subjugation of Hindostan proper, so distracted was the state of the country, and so great the prestige of the invaders. But Clive returned to India at the time, and decided that further conquests were undesirable. Home poli-

Clive's settlement of
foreign policy, 1765.

tics in England rendered Crown government in India impossible as yet, nor could the Company undertake wider governing responsibilities until its constitution should be thoroughly remodelled. Even in Bengal it had failed miserably, and there can then be little question that Clive's settlement of the foreign relations of Bengal was wise.† Commerce could not yet be abandoned for conquest. Clive met the Emperor in person, and received the *Dakan* of Bengal, Behar and Orissa. The authority of the Mogul, very important still in India, was also obtained to the separation of the Carnatic from the Nizam's dominions, and to the British occupation of the Sircars. Next the Nawab of Oudh was attached to English interest by an alliance. Not even a part of Oudh was annexed, but it was made into a buffer State between Bengal and the northern Mahrattas. Clive, in fact, introduced into India the principle of the balance of power, which ruled the politics of Europe in the 18th

The Balance of Power
in India.

century. As Sindhia and Holkar were to be balanced by Oudh in the north, so was the Peishwa to be balanced by the Nizam in the Deccan. In both cases Mohammedan was to watch Hindu. Finally, the Bhonsla of Berar was to be conciliated. Orissa had practically fallen into his hands ten years before.

* But two districts were transferred to Shah Alam for his maintenance. The shrunken Empire—a territory now much smaller than Oudh—was at the time managed by a Rohilla Afghan, placed in power by Ahmed Abdali. The incursions of Sikhs and Jats scarcely made restoration desirable to Shah Alam, even had it been possible.

† The tangled chain of events which preceded Clive's settlement of foreign affairs are well related by *Gill* in his standard history, and usefully summarised by *Keene* in his *Fall of the Moghal Empire*, Ch. I. In matters of fact such as these *Gill* is a trustworthy guide.

and Clive wisely refrained from interfering with the Bhonsla's collection of revenue in that province despite its inclusion in the Imperial Firman. Orissa did not come under British rule until 1803.

Domestic problems no less pressing awaited the returning statesman. During the absence of Clive the Company's affairs had fallen into incapable and inexperienced hands. The position of the British in Bengal was anomalous and ill-defined. The Nawab of Bengal, like the Nawab of the Carnatic, was in practice the servant of the Company's servants, but the Company had not yet legally acquired sovereign rights. The representatives of the Company were now advisers who could compel obedience, but their new dominion was not yet authorized by the titular sovereign, the Delhi Emperor. In effect their position was even more awkward and anomalous than that of the British in Egypt at the beginning of their occupation. But the experience of Empire has now made a practicable course of policy in such circumstances easy of attainment; in 1760 the early British Empire-builders lacked the experience, and were confronted with new problems quite beyond their skill. The case was complicated by the ostensible aims of the Company; it existed to make money, not to govern subject peoples. Hence nothing in the form of an avowed dominion was claimed, government was left entirely to the native ruler, and the officers of the Company, most of them be it noticed, merchants

Abuse of authority,
1760-5.

by profession, devoted themselves to amassing the fortunes which their new supremacy brought within their reach. The position offered immense temptations, and the Company's servants scandalously abused their position. They entered largely upon private trading, and claimed for themselves the trade privileges and exemptions which belonged by right only to the Company in its corporate capacity. Even the Company's native agents asserted a right to these exemptions, and shielded behind their masters used every kind of extortion and oppression. Meanwhile Mir Jaffar was bound by treaty to pay heavy compensation for the losses undergone by the Company at the hands of his predecessor, and for the subsequent war expenditure. He was also to receive British troops whenever he should acquire them at his own cost. The Company thereupon garrisoned Bengal with their own men, British and Native, well paid from the Nawab's treasury, while the ruler himself had not wherewithal to pay the expenses of his government or to satisfy his own troops. Finally the Council at Calcutta, not

Deposition of Mir
Jaffar, 1760.

realising that the blame of the Nawab's insolvency was their own, deposed him for inability to pay their claims, and placed his son-in-law, Mir Kasim, upon the throne. The new Nawab found the position no less intolerable, but he was a man of spirit and determination. He privately drilled an army of sepoys on the Company's model, and awaited an opportunity to assert himself. A quarrel shortly arose between Mir Kasim and the head of the English factory at Patna, Mr. Ellis.

Ellis behaved unjustifiably, as well as rashly, and was imprisoned by his liege lord. The Company then made war on Mir Kasim, who, after defeat, took refuge with the Nawab of Oudh, and helped to bring about that war of which the battle of Buxar was the chief landmark.

Mir Jaffar again Nawab. Mir Jaffar was now created Nawab, and when he died in 1765, was succeeded by an infant son.

Meanwhile Clive returned armed with plenary authority to deal with the situation. His foreign policy we have already noticed; his domestic settlement was equally rapid.

The Company's servants were forbidden to receive presents, or to carry on private trade, and their native agents were to cease trading under colour of the Company's authority. Some, though insufficient, increase of salary was granted in compensation. Similarly the military ceased to enjoy that extra pay which they had received since Plassey, but which had been in intention nothing but a temporary grant. Naturally these measures provoked the most violent opposition. But Clive was a man of iron resolution, and no obstacles could bend his will. Some control was thus effected over the Company's servants, and some of the most glaring abuses were suppressed. Next Clive obtained from Shah Alam a grant of the Diwani—or financial management of "the Subahs of Bengal, Behar and Orissa," condition of paying to the Emperor twenty-six lacs a year. The Company thus became responsible administrators; they were to collect and control the revenues

and maintain a standing army, and were to pay the Nawab fifty lacs a year to enable him to administer justice and maintain a police force. These measures marked a step forward in the government of the province, but they could not be final, for they elaborated no permanent constitution. Sovereignty to be effective must be indivisible, and the system of dual control now inaugurated, however great an improvement on the previous chaos, was bound to be fruitful in misgovernment and very wasteful. Warren Hastings and Cornwallis had to claim the remaining functions of sovereignty for the sake of the people and of the Company alike. But Clive had accomplished his part of the work well. He had removed the most glaring abuses, and left

the Company in a position to take their first lesson in government. Above all, he laid down a foreign policy for Bengal which was practically adhered to for forty years. His second period of office closed in 1767, when he finally left India. He was equally great in statesmanship and war, and was the virtual founder of the British Empire in India. The opposition he encountered in India had its counterpart at home, and revealed itself in malicious attempts to arraign his administration after his return to England. But Parliament decided that he had "rendered great and meritorious services to his country." None the less the bitterness of his foes told upon him, and he committed suicide in 1774.



WARREN HASTINGS.

(III.) WARREN HASTINGS AND PARLIAMENTARY SUPREMACY.

As soon as Clive's controlling spirit was removed, the dual system he had set up brought about a renewal on a minor scale of the evils he had come to combat in 1765. The new system was manifestly imperfect, and could only be kept free of grave abuses by an iron will and a strong hand. The Company was under strict order from London to abstain from interference with any other branches of the administration than the revenue and the army. Even the collection of the revenue was made over to native officers, who were able to impoverish the people at their discretion. An attempt was then made by Verelst, Clive's successor, to mitigate these evils by appointing English officers as "supervisors," but the

officers were the boys of the Company's service, and failed to check the prevalent abuses. Meanwhile the evil was intensified by a return to the habit of private money-getting by the members of the Company, even by the Councillors themselves.

The condition of Bengal becomes steadily worse after Clive's departure. Then followed the great famine of 1770, which swept away millions of the inhabitants. Nearly a

quarter of the land passed out of cultivation, and the misery of the people was intensified by the depredations of banditti and wild beasts.* The Company made scandalously poor attempts to relieve the situation, and the condition of Bengal was indeed little better, if not worse, than it had been under the

* Some graphic details will be found in Hunter's *Annals of Rural Bengal*, a very complete study of the local conditions obtaining at the time of the British conquest.

tyrannical native government before 1756. The chaotic state of the country attracted the attention of the British Parliament, and it was clear that the Company's position must be placed upon a more regular footing. As early as 1766 the wealth of the Company had resulted in a law, binding the Directors to pay £400,000 annually to the Crown. But within a

Parliamentary
interference.

few years from that date malversation and maladministration had so sapped the Company's resources, that not only was this tribute not forthcoming, but the Company actually approached the British Government for a loan (1772). At this time Lord North, himself hostile to the Company, ruled both Houses of Parliament with undisputed sway. The Select Committee appointed to investigate the matter condemned the Company in their reports, and the Commons declared that all acquisitions made under the influence of a military force, or by treaty with foreign princes, of right belong to the State. The time was, however, not yet ripe for bringing the Company's dominions directly under the Crown; all that was done was to assert Parliamentary supremacy and to give the Company its first governing constitution. Lord North's Regulating Act of 1773 began what with relation to the British possessions in India may be called "the Period of Acts of Parliament." From 1600 to about 1760 the Company was virtually uncontrolled; this was the period of Royal Charters. The period of

North's Regulating
Act, 1773.

control by Parliamentary Acts ended with the introduction of the Crown Government in 1858.* By the Act of 1773 the administration of Bengal was placed on a regular, though exceedingly imperfect, footing. A Governor-General and four Councillors were appointed; the first batch were named in the Act, but the patronage was to be subsequently vested in the Company. The supremacy of the Bengal Presidency over Bombay and Madras was declared, and the Governor-General with his Council alone had the power of declaring war and making treaties. A Supreme Court of Justice, appointed by the Crown and independent of local authority, was established in Calcutta; from this Court an appeal lay to the King-in-Council. That a definite executive authority should be established in Bengal was a great advance, but the new system was clogged with an

Defects of the new
constitution.

unfortunate stipulation that the Governor-General could only exercise a casting vote in case of the voting being equal: a majority of the Council was to be the supreme local authority. The evil effected by this injudicious provision was incalculable. Another defect was the ill-defined jurisdiction of the new Court.

It claimed jurisdiction over the whole native population, as also over the Company's servants even in their official capacity. The judiciary, in other words, claimed authority over the executive, and denied the sovereignty of the Council. These impracticable claims were eventually defeated, but the attempt to make them good hampered the Government most disastrously at a time of crisis.

The first Governor-General of British India was Warren Hastings, at the time Governor of Bengal. He had been one of Clive's right hand men on the Calcutta Council, had lately done good work in Madras, and was appointed by the Company Governor of Bengal in 1772. He ruled from 1772 until 1785, for two years as Governor, for eleven years as Governor-General. Before Lord North's new system came into force in 1774, Warren Hastings had already done much. His strong arm had purged the administration of its most grave abuses, the control of the Revenue Department had been removed from Murshidabad to Calcutta, and an efficient service of European Collectors organized. An important addition was made to the machinery of the State by the establishment of Courts of Justice with European Magistrates (identical with the Collectors) in each district, with a Court of Appeal at the Capital. But criminal jurisdiction both in the district and Appeal Courts was still left in the hands of native officers. The foreign policy of Hastings' whole regime will be dealt with continuously; suffice it to say that he carried through the much blamed Rohilla War in his capacity of Governor, and that the intrigues at Poona which led to the far-reaching First Marhatta War were already on foot in 1774. When the new Members of Council arrived in October of that year, Hastings found himself in a most trying position. Three out of the four Councillors declared against him and set themselves to frustrate the policy of the Governor-General by their insidious coalition. Philip Francis, the probable author of the Junius Letters, was the leader of the Triumvirate, Clavering and Monson his unwavering supporters. The fourth and remaining Member, Barwell,

Warren Hastings,
1772-1785.

A minority of the Council, was consistently loyal to Hastings, but by the constitution of the new Council, the votes of three Members were decisive. Everything that Hastings had done was condemned, everything he tried to do was misrepresented and opposed.

Whether their course was reasonable or salutary mattered to them little; personal hostility completely submerged all considerations of public good. It is apparent that Francis coveted the office of Governor-General and expected to satisfy his greed by making Hastings' position untenable. The first great difference took place in connection with the Nawab of Oudh. When Shuja-ud-dowla died in 1775, his mother and widow, the famous Begums of Oudh, claimed treasures and estates to which they had no legal right, and without which the New Nawab could not conduct his Government or pay his troops. Hastings rightly supported the Nawab in his claim to the treasure, but the Triumvirate out of sheer opposition seconded the Begums and guaranteed their possession of the property.* The sequel is notorious. In later years, when Hastings had been freed from the tyranny of the civilian coalition, the Nawab of Oudh fell into arrears with the subsidy paid by him for the support of British troops. The Nawab needed money and

Affairs of the Begums
of Oudh, 1782.

* The constitutional history of English dominion in India is most satisfactorily handled by Sir C. Ilbert in his *Government of India*.

* It was on this occasion that the cession of Benares was demanded.

Hastings needed money, hence the Nawab was authorised, nay assisted by the Company's troops, to seize the property and treasure of the Begums. Though violence had to be resorted to, the Begums obtained an abundant pension, and, as we know, bore Hastings no grudge for his share in the transaction. The obstinacy of the Council was responsible for the non-execution of this claim when it had a greater show of legality, and the fact that the very existence of the British in India was at the time imperilled for want of funds may to some extent justify Hastings in his action. He felt that the interests of his government demanded an arbitrary act, and no thought of private obloquy made him hesitate.

Next came a personal attack on Hastings. Charges of corruption against him were welcomed by the Council. An old enemy, Nuncomar, came forward

The affair of Nuncomar, 1775.

with a string of concocted fables, and the Triumvirate demanded that he should be heard before the Council. Hastings with dignity refused to be arraigned before his own Council, but offered to submit the charges to a Committee. But an unexpected defender appeared in other quarters. Nuncomar was accused of forgery before the High Court by a personal enemy with whom he had carried on a private feud for many years. The case had nothing to do with the charges against Hastings, but the defendant was convicted, and as forgery was a capital offence according to the English Law of those days, executed. Sir Elijah Impey, the Chief Justice, though a friend of Hastings, was not, as had been now amply proved, incited by the Governor-General. Hastings had no connection, open or covert, with the trial; it was conducted with absolute fairness, and the Judges were unanimous in their verdict. As even the Triumvirate, the friends of the accused, took no steps in his favour, the sentence was duly carried out.* Still the rivalry with the Council continued, and the intestine struggle most dangerously hampered Hastings in the critical situation caused by the outbreak of the Mahratta War. However, Monson, one of his opponents, died in 1776, and Hastings became at length predominant.

For five years he retained the supremacy.† and well he needed it, so dark was the horizon, so great the difficulties created by the confederation of allies in the Deccan, and the administration of affairs in Bengal.

The contest between the Council and Supreme Court.

The chief domestic problem which remained was the position of the Supreme Court. Its contest with the Council consistently hampered the work of government, and at last Hastings had been constrained to make use of the military in disregarding the processes of the Court. A compromise was now made with the Chief Justice, by which an appeal from the Civil Court in the districts should be

transferred from the Supreme Court to the Company's Chief Court, the *Sadr Diwani Adaulat*, Impey agreeing to sit as Chief in this Court in the position of the Company's officer. The deadlock was then removed, greatly to the advantage of all parties, and especially to the people of Bengal.

At the same time Hastings established a Revenue Board to enquire into land tenures, with the object of devising some systematic assessment of the land tax. It was not, however, until the time of Cornwallis that

Subsidiary alliance with Oudh, 1777.

these inquiries bore fruit in a permanent assessment. Freed from the control of an inconsiderate opposition, Hastings made tighter the bands which had united the British in Bengal with the Nawab of Oudh ever since the advisability of such an alliance had been laid down by Clive. By the new agreement which may really be ranked as the first example of our 'subsidiary alliances,' the Nawab was to have "an army drilled, officered, controlled and paid by the British, who in return were to have the revenues of certain districts allotted to them for that purpose." The dealings of Hastings with another native prince of north India may here be briefly summarised.

In 1775 Benares had been transferred from Oudh to the British on the order of the Council.* The land lord of the district had thereupon been elevated to the title of Raja, and was subject to the usual responsibilities of a feudatory. Nor the least of these is assistance in war, whether by armed forces or extra pecuniary contributions. In 1778 the Governor-General was in the greatest difficulties to supply funds for the extensive warlike

Cheytt Singh, the Raja of Benares.

operations into which he had been unwillingly dragged. A contribution of five lacs was demanded from the Raja of Benares, and paid. In 1779, it was again demanded and paid. But further war supplies were indispensable, and when the Raja failed

Hastings' dealings with him, 1778-9.

to provide a contingent of horse, Hastings, suspecting Mahratta intrigues, felt justified in acting with the greatest severity. A fine of fifty lacs was demanded, and the Governor-General proceeded to enforce it in person. The Raja was placed under arrest in Benares, an insurrection broke out; Hastings was nearly captured, and the Raja escaped. But Hastings' calmness and vigour soon quelled the rising by the aid of British troops, and a new Raja was set up. Whether Hastings was technically justified in proceeding with such severity upon a prince whose loyalty had not been disproved, is a moot point; according to most moral standards he behaved with undue harshness. But there is no doubt that his harshness subserved the interests of his country; it enabled him to fill the Company's coffers, and to prosecute vigorously a war which otherwise might have had a disastrous result, and indefinitely retarded the extension over India of the *Pax Britannica*.†

* See Macaulay's Essay on Warren Hastings. He uses the case to blacken the name of Hastings and Impey by arguing on a theory of probabilities instead of relying on well-substantiated facts.

† But Francis was still a thorn in his side. Provoked at last, beyond endurance, Hastings drove him into a duel and wounded him so severely that he had to leave for England in 1780. His machinations in England were no less malicious and even more disastrous than his opposition in Calcutta.

* On the death of Shuja-ud-doulah the cantankerous Council dictated a new agreement with his successor, much against Hastings' will. The terms, of which the cession of Benares was one, were unduly severe.

† See Keene's History, Vol. I, p. 242.

The Benares affair, the treatment of the Oudh Begums, and the Rohilla War, are the three acts which Hastings' enemies— and they were many— fastened upon in order to prove that the great Governor-General was a wantonly aggressive tyrant.

Rectitude and lofty character of Hastings.

But in all three cases he was persuaded of the justice of his course. In none was there any personal advantage to be gained. Indeed had Hastings allowed himself to be swayed by personal motives, he would have abstained from acts which were bound to harm his reputation, but in that case the British armies in India would have remained unsupported and the rising British power would have been overwhelmed. We may well imagine him to have thought what Danton said "Let my good name be tarnished so that my country prospers." Nor must it be supposed that he required funds to maintain wars of aggression. Most of the wars he conducted were entered upon largely against his will, and in the case of the great conflict with Mysore, the British attitude was essentially defensive.

An account of Warren Hastings' relations with the Native States involves a brief statement of the Company's external policy immediately preceding Hastings' accession to power. Clive had left Bengal in a state of peace when he retired in 1767. Madras and the Carnatic had been left in tranquillity by the Peace of Paris in 1763. Bombay and Surat had enjoyed uninterrupted freedom from attack

since the time of Shivaji. With the establishment by Clive of a sound system of external policy in the north, the scene of the action shifts to the south and west.

The north remained tranquil with slight exceptions until the end of the century. Though the Mahrattas effected the escape of Shah Alam from Allahabad in 1771 and placed him as their puppet upon the throne of Delhi, their influence in this region was hardly yet continuous and dangerous, and it was not until the time of Wellesley that

the great Mahratta irruptions necessitated a forward policy in the north. The history of Bengal then during this period is mainly of internal interest and centres round the evolution of a sounder administrative system under the direction of Warren Hastings and Cornwallis. But in the centre of India the Mahrattas dangerously threatened Bombay within ten years of Clive's departure, and the growing power of Mysore all but drove the British out of Madras a few years later.



HAIDER ALI, NAWAB OF MYSORE.

Haider Ali was a man of great natural genius, and military knowledge. Possessed of unusual daring and consummate cunning, he was a master in the art of managing mercenaries. Having risen by his abilities to be Commander-in-Chief of the army in the service of the Hindu Raja of Mysore, he had deposed his master in 1761, and proclaimed himself Sultan of the state. He rapidly extended his boundaries at the expense of his neighbours, carried his arms to the Malabar Coast, tore off strips of the Nizam's territories, provoked the Mahrattas, and threatened the Carnatic. His seizure of Calicut in 1766 instigated an alliance between the Nizam and the Mahrattas, into which the British of Madras, by reason of an important treaty with the Nizam, were dragged against their will. Confronted by this triple power Haider bribed the Mahrattas to retire and cunningly persuaded the Nizam to attack the British in conjunction

with himself. A couple of British victories and the advance of a force towards Haiderabad, however, persuaded the treacherous Nizam to make another change of front. He sued for peace, and Haider was left alone to face the British. But the Madras Government was at this time notoriously incompetent. The war dragged on. Colonel Smith, a capable Commander, who had victoriously penetrated to the heart of the enemy's country, was shamefully superseded and Haider's fair offers rejected. Haider rapidly

*External relations.
1767—1785.*

Mysore under Haider Ali.

*First Mysore War.
1766-69.*

General trends of event.

recovered his lost and finally dictated

The treaty of 1769, the cause of much subsequent trouble.

ground, assumed the offensive, terms of peace within sight of Madras. The war was a blunder from beginning to end, and the treaty which concluded it was the worst mistake of all. The Madras Government bound themselves to assist Haider in case of attack by the Nizam or the Mahrattas, but when in the following year Haider came to blows with the Mahrattas, and had the worst of the contest, the British, being called upon to assist, refused to interfere on the ground that Haider was the aggressor. Whether they were right or wrong, their inability to conduct another war compelled them to observe neutrality. Haider's losses in the Mahratta war were however the measure of his indignation against the British; he never forgave them and he had his revenge when six years later he entered the great anti-British confederation and seriously jeopardised the very existence of the British power in India.

Before Hastings was faced with Mahratta and Mysore troubles, he conducted the famous Rohilla war in the north. Even that war, however, was suggested by the Mahratta peril. The Rohillas and the Oudh Nawab could barely hold their own against the annual plundering expeditions of these hardy foes. Now the independence of Oudh and Rohilkhand was necessary to the security of the British frontier. Accordingly, when the Mahrattas invaded Rohilkhand in 1772, the Nawab of Oudh assisted in driving them off, and the authorities at Calcutta only stopped short of an actual declaration of war to achieve the same end. In 1773, however, all three powers co-operated actively,

The Rohilla War, 1774.

and compelled the Mahrattas to withdraw. The Rohillas had only obtained the Nawab's assistance under promise of a subsidy of 40 lacs of rupees, of which when the danger had passed away, they evaded payment. The Nawab Shuja-ud-doulah then resolved on the conquest of Rohilkhand, a district which he had long coveted. He implored the assistance of the British, promising Hastings funds of which the Company was then in urgent need, and asserting as a pretext that the Rohillas were intriguing with the Mahrattas, and were thus a common danger to the stability of Oudh and Bengal. Hastings acquiesced: British troops were lent to the Nawab, and Rohilkhand was conquered with "gross and superfluous violence." The affair was hardly creditable to Hastings. Doubtless he needed money, doubtless the Rohillas were usurpers, in the strict sense of the term, and doubtless the transaction was of a kind common enough in India, nor regarded as unjust by the Oriental standard of state-craft. Again the Rohillas might quite conceivably have joined the Mahrattas, and thereby have brought the safety of the British dominion into danger. But no specific charge could be brought against them, and expediency is not the sole principle of action in

Criticism of Warren Hastings' action.

international relations. Again, the Rohillas were no more usurpers than the British themselves, or the Nawab of Oudh himself, for technically all those princes and rulers who claimed independence on the break up of the Mogul empire were usurpers. Nor

was it proved that the Rohillas meant entirely to refuse the payment of their subsidy. Even if they had the annexation of their whole territory was rather a disproportionate punishment. But it should be remembered that the high ideals of statesmanship which Hastings, to judge by several of his actions, lacked, and of which his enemies in England hypocritically claimed possession, were not by any means universally accepted even in the Europe of that day. Frederick the Great and Napoleon after him carried expediency into politics with cynical indifference to moral claims. The Siberian war, the Partition of Poland, and the Partition of Venice, are on most counts more culpable than the expulsion of 20,000 Rohilla Afghans from a Hindu country which they had not governed half a century.

The Rohilla war was the only one directly planned and undertaken by Hastings, but within a few months of entering upon the new office of Governor-General, he was involved in a series of complex negotiations with the Mahrattas, which through the

Disputed succession at Poona, 1774.

precipitation of the Bombay Government, led to the most serious and protracted war that the Company had ever been compelled to wage. The trouble began with a disputed succession at Poona. Madhu Rao, the Fourth Peishwa, who had ruled since Pampat, died still young in 1772. His younger brother succeeded him, but was assassinated within a year. The notorious Raghoba, uncle of both, was probably instrumental in the murder, and now claimed the succession. But he was regarded with hostility in many quarters. In 1774 Nana Farnavis, a Poona Minister, proclaimed as Peishwa, a posthumous son of the murdered chief. Raghoba sought the assistance of the great Mahratta chieftains

Treaty of Surat between Bombay and the Pretender, 1775.

with only partial success, and also laid his proposals before the British Government in Bombay. Bombay was not blind to a chance of obtaining ascendancy at Poona, but above all, it wanted Bassein, and the island of Salsette. A bargain was accordingly struck with the Pretender, and embodied in the Treaty of Surat (1775). The Calcutta Council condemned this treaty, declaring the meditated war 'impolitic, dangerous, unauthorized, and unjust.' As it turned out, the shortsighted Bombay Government had embarked the Company upon a sea of troubles which within a few years extended over the whole Peninsula. But despite their subordination to the new authority at Calcutta, the Bombay Government entered upon operations without awaiting authority. Salsette and

First Mahratta War, Battle of Arras, 1775.

Bassein were occupied, and 3,000 troops went to the assistance of Raghoba. Starting for Poona from their base in Gujerat, they found their passage disputed by a Mahratta army at Arras, near Baroda. The Mahrattas, although they outnumbered the British by ten to one, were driven in disorder across the Narbadda. Hastings saw the danger of retreating when once Bombay had been committed to the war, but he was overruled as usual by his Council. An envoy was despatched to Poona to disavow the former treaty and despite the fact that the campaign had gone in

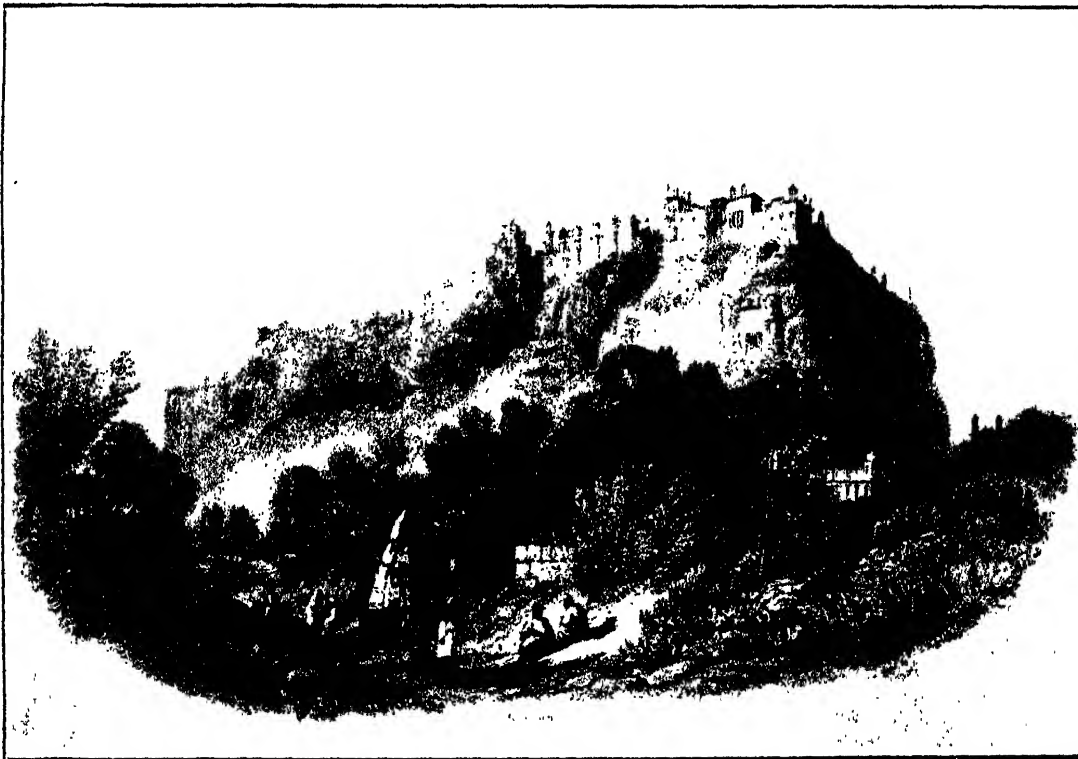
favour of the British, to conclude a new one on far inferior terms. Raghoba was no longer to be supported and Salsette alone was to be retained. The Bombay authorities, however, failed to observe the treaty and by their countenance of another claimant to the Peishwaship, an impostor—paved the way for fresh troubles. But by 1778 several important events had occurred. Feuds had weakened the Regency Council at Poona. Sindhia was wavering, and a French adventurer, St. Lubin, arrived at Poona with a fictitious promise of French intervention. Meanwhile Hastings had got the upper-hand in his Councils. The French spectre inclined him to vigorous action, for France was on the

Treaty of Purandar,
1776.

Wargaon, by which Raghoba was thrown over, and a return was made to the *status quo* of 1773. But this slur on British prestige was atoned for by the brilliant march of Goddard across 1,000 miles of difficult country from the Jumna to Surat. The convention was disavowed, and when the Poona authorities refused to lower their terms, Goddard overran Gujerat, captured the capital of Ahmedabad, dispersed the forces of Sindhia and Holkar, and finally separated the Gaekwar from the coalition. A few months later Popham began a series of successful operations in northern Malwa. Gwalior, deemed impregnable, was captured by a brilliant *coup de main*, a feat which

Convention of Wargaon,
1779.

Goddard's successes,
1780.



THE FORT OF GWALIOR. From the North-West.

eve of declaring war against Great Britain and had already given considerable aid to the rebellious colonists in America. French intervention in India was only too probable, and might give dangerous assistance to the Mahrattas. Consequently Hastings wrote to Bombay authorising war. A new treaty was concluded with Raghoba, but before the expedition from Bengal had arrived to make victory possible, the Bombay Government had despatched an insufficient and badly organized force on a hazardous march to Poona. The folly of this action was soon apparent: the expedition blundered into premature retreat, and after narrowly escaping annihilation concluded the disastrous convention of

Renewed War,
1778.

effectually drew off Sindhia from the south. That chief was finally defeated in the following year, and thenceforward made it his object to conclude a peace between the British and the Mahrattas.

Meanwhile more enemies had come into the field against the British. The declaration of war by France in 1778 had induced Hastings to prepare for French intervention in India. Not only had he considered it advisable to try conclusions at once with the Mahrattas, but he promptly ordered the French settlements in India to be seized. Mahé on the Malabar Coast was asserted by Haider Ali to be under his protection, and the seizure

Capture of Gwalior,
1780.

Great Coalition of Native
Powers, 1779.

of it in spite of his prohibition hastened on the formation of a powerful anti-British confederation. The Nizam, Haider and the Mahratta chiefs now formed a league for the expulsion of the British from India, and backed by the expectation of French assistance,* they were a most formidable coalition. "The Bhonsla was to deal with Bengal, the western Mahrattas with Bombay; Mysore and Haiderabad were to invade Madras." At the same time Spain, Holland, France and the American colonists were united in an attempt to humiliate Britain in the west. Never save in the giant duel with Napoleon, has she been opposed by such a formidable array of powers. That she did not completely succumb in the west is due to the fact that she had not completely lost command of the seas; that she triumphed in India is due partly to the fluctuating character of the coalition, partly to the masterful vigour of the Governor-General.

In the summer of 1780 Haider Ali with nearly 100,000 men burst like a tornado upon the Carnatic. Madras throughout the last portion of the 18th century was the evil genius of the British in India. During the seven years ending in 1781 two Governors had been dismissed

Second Mysore War,
1780-4.

by the Directors, one had been suspended by Hastings, and a fourth deposed by his own Council.

Corruption and incompetence were rife in the southern Presidency, and on this occasion as on others no preparations had been made to meet the storm. The whole responsibility for providing men and money devolved on Hastings, whose resources were already depleted by the Mahratta war and the calls of Bombay. Before, however, he could come to the

Haider Ali's invasion of
the Carnatic, 1780.

rescue, a series of reverses had been sustained. Haider pillaged the Carnatic at his will, cut up one British army, and drove back a second in tumultuous rout upon Madras. A little longer, and he might have captured Madras itself. But with the following year the tide of fortune changed. The Nizam had without

Improved conditions,
1781.

much difficulty been detached from the alliance, the Bhonsla, jealous of the Poona R-gency,

showed himself friendly to the British. Sindhia, defeated in 1781, made peace the same year, and the Gaekwar had already been separated from the confederacy by Goddard. Any Mahratta successes which had recently been achieved were credited to Holkar, and

Treaty of Salbai (1782)
ends the 1st Mahratta
War.

Madhoji Sindhia, a consummate statesman, who played for his own hand, now aimed at frustrating his rival's predominance. This could best be accomplished by bringing the war to an end. Actual hostilities with the Mahrattas ceased in 1781, and Sindhia acting as plenipotentiary, brought about the treaty of Salbai, by which the English retained Salsette, and the Mahrattas bound themselves not to admit the French or Dutch within their dominions.

By 1781 the veteran Sir Eyre Coote had arrived in Madras to take charge of the operations against Haider Ali, who as we have seen was rapidly being deserted by

his allies. But he was a power in himself, and Coote was scandalously hampered by the Madras authorities and by want of funds.* Still in

Sir Eyre Coote's successes
in Madras, 1781.

three summer months he was victorious in three engagements, and Haider, who fully recognised the qualities of the old campaigner, began to despair of ultimate success. His French allies had not come to his assistance, his Indian allies had deserted him. The sea was still open for the arrival of British reinforcements, and the important harbour of Trincomalee was shortly captured from the Dutch. "I may ruin their resources by land," said Haider, "but I cannot dry up the sea, and I must

Haider Ali loses ground,
1782.
His death.

be exhausted by a war in which I can gain nothing from fighting." By 1782 Haider was fairly disabled, and the cutting up of a

British detachment under Braithwaite was too late to turn the scale. In December the old lion of the Carnatic died, and Sir Eyre Coote soon followed him to the grave. Tippoo, Haider's son, continued to carry on

Arrival of French troops
and ships, 1782-3.

the war, and was encouraged by the presence of a French Squadron under Suffren, and the arrival of troops under the old hero Bussy. Suffren was opposed by the English Admiral Hughes, but all the French and Dutch possessions had been occupied by the British, he had no base of supplies or repair. Five obstinately contested naval battles were fought (1782-3) and Suffren, unable to strike any effective blow, re-

Peace of Versailles,
1783.

joined to hear in July 1783 that peace had been concluded between France and England. He sailed for Europe, and Bussy, after accomplishing little of importance, also left the stage.

Tippoo, left alone, had besieged a small force in Mangalore for nine months, until the heroic garrison, despairing of assistance, and half starved, sur-

Tippoo conducts the
war alone.

rendered to the Sultan and his 100,000 men. The heroic defence of Mangalore under Colonel Campbell of the 42nd, is one of the most brilliant achievements in military history. Meanwhile an army under

Siege of Bangalore,
1783.

Fullarton was penetrating to the heart of Mysore and would have brought the war to an honourable

termination, but for the folly of the Madras authorities. Macartney set Hastings at defiance over the negotiations and, after the British Commissioners had been treated with every indignity, peace was concluded on the basis of a restoration of conquests. But for Madras, Fullarton could have occupied Serin-

Operations of Fullarton,
1783.

gapatam, and the remaining Mysore wars need never have arisen. No addition to British territory beyond the occupation of Salsette was made by any of these wars. In one sense perhaps this was as well; it showed that territorial aggrandizement had not been their occasion, but still the settlement was incomplete and left a fresh

* Marshman's History of India, Vol. I, p. 398. Marshman provides an exceedingly reliable account of these operations.

* An interesting commentary on these events can be found in Lawson's Memories of Madras. Lord Macartney, then Governor, persistently thwarted the Commander-in-Chief by asserting the superiority of the Civil power; 1781 was certainly not the time to discuss that question.

crop of troubles to be dealt with by Hastings' successors. The great Governor-General censured by the Directors and attacked in Parliament, resigned his high office in 1785, as soon as he was able to leave peace and order behind him. It is impossible to estimate his services too highly. Hampered by foes in the Council, and by the Directors in London, he had set in order the chaos of Bengal misrule, "had drawn the ground-plan of regular systematic procedure in almost all departments of executive government, and above all had saved the State in its acutest crisis." But for Hastings' resourcefulness and indomitable resolution British rule in India must have succumbed to its numerous foes in the great war just waged. If Clive laid the foundation of British India, Hastings saved that power from being annihilated in its infancy. The treatment meted out to him in England on his return is a matter of ignominy to the politicians of the time, but some satisfaction must have resulted from the knowledge that by Native and British testimony alike his work had been appreciated to the full in the India that he loved so well.

Peace concluded.
1784.

The achievements of
Warren Hastings and his
resignation, 1785.

(IV.) EXPANSION OF BRITISH DOMINION: CORNWALLIS AND WELLESLEY.

After Sir John Macpherson had ably acted as *ad interim* Governor-General for twenty months, Lord Cornwallis arrived to assume the office under new and more satisfactory conditions in 1786. Indian affairs were now steadily being brought within the current of domestic politics in London. A conviction was abroad that the East India Company had become too powerful for a trading corporation; its position was an anomaly which many statesmen thought should be termin-

Parliamentary
interference.

ated. Fox in 1783 brought in a bill to transfer the Company's authority to Parliamentary Commissioners. Burke supported it by a powerful, though exaggerated declamation against the sins of the Company and the enormities of Hastings. But the scheme was illconsidered and arbitrary. While rightly requiring greater powers to be vested in the Governor-General, and greater responsibilities to be assumed by the British Government at home, it annihilated at one blow the patronage of the Crown and the patronage of the Company, by transferring the bestowal of all appointments to the Commissioners it intended to create. A storm of opposition was aroused, in the bill became the battleground of Parliamentary strife, and King George III contrived through the House of Lords the overthrow of the coalition under whose auspices Fox had introduced his bill. William Pitt the younger now became Prime Minister, and his first important achievement was the Indian Act of 1784. It carried out many of the remedies proposed by Warren Hastings, and it avoided interfering too largely with the legitimate patronage of the Company. While the Presidencies of Madras and Bombay were each to have their own Governor, Council, and Commander-in-Chief, they were to be subordinated more completely than before in diplomacy, war and the application of revenues, to the Governor-General and his Commander-in-Chief in Bengal. The Governor-General was given very full powers, and a supplementary Act in 1786 allowed him to override or act without his Council on emergency. So far the Act simply developed the sketchy outline of Lord North in 1773. But Parliamentary supremacy was asserted by a deliberate constitutional novelty. The Court of Proprietors lost their power, and a Parliamentary Board of Control consisting of a Minister and six Commissioners—four being Privy Councillors—was created to

Fox's East India Bill,
1783.



TIPPOO SULTAN, NAWAB OF MYSORE.

From a painting by Lieut.-Col. Dighton.

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Pitt's Act, 1784.

The new system.

supervise the transactions of the Directors. This Board was to have access to all correspondence, and was given power "to check, superintend and control all the acts, operations, and concerns connected with the Civil and Military Government, and the revenues of India."* The system was to some extent cumbrous, but the newly applied principle was unquestionably just. When, however, the Act declared it to be incumbent on every Governor-General to pursue a policy of non-intervention in the wars and alliances of the Native States, it proved that even the greatest statesman of the day, misunderstood the condition of Indian politics. Such a policy had been tried in vain by Hastings and Cornwallis, who left England with the firm intention of devoting himself to peaceful consoli-

supported rather than thwarted by the authorities at home, and the confidence inspired by his sense and judgment procured for him a far greater latitude than his predecessor had enjoyed. His first act was to attack the abuses of jobbery and corruption which still survived owing to the ridiculously low salaries given to

Reforms of Cornwallis
in Bengal.

the Company's officers. He forced through a reasonable increase of salary, a concession which neither

Clive nor Hastings had been able to extort from the Directors. Later in his rule Cornwallis carried out a series of important changes in the administration of Bengal. Four English criminal circuit Courts were set up, as the Mohammedan criminal judiciary confirmed by Hastings had proved inefficient. In addi-



EARL CORNWALLIS, K.G.

dation and retrenchment, was himself soon destined to find that diplomacy and aloofness would provide no guarantee against anti-British aggression in those days of turmoil. So far from being able to pursue a course of peaceful neutrality, Cornwallis and Wellesley, the next great Governor-General, were involved in widespread wars, and were between them responsible for the greatest expansion of the British dominion which had been yet witnessed. This proves how feebly the tendencies of the time could be resisted.

The Governor-General was now hardly an officer of the Company, but rather the embodiment of English sovereignty in a new and definite way. He was



MARQUIS OF WELLESLEY.

tion, four provincial Courts of Appeal for Civilcases were established, and Magisterial and revenue functions were completely separated- a reform, Hastings had tentatively embarked upon. A codification of the Civil law greatly assisted the course of justice. But in criminal jurisdiction Mohammedan law was in the main retained. Finally the currency was purified and an assessment of the land undertaken. The settlement of the land revenue founded upon this assessment was known as the 'permanent settlement' and is still retained with modifications in Bengal.

It is based upon the theory of landlordism such as obtained most strongly in the England of that day. Cornwallis found scattered throughout the country local magnates commonly styled *zemindars*. These

* This system of double government lasted with few changes until 1858.

had originally been merely the collectors of revenue under the Mogul régime. But very commonly they had acquired a hereditary right to the position, and this struck the Englishmen in the Company's

service as a species of proprietary right.* The zemindars in fact appeared to be the only proprietors, and by a logical conclusion all beneath them were their tenants. Hence the zemindars were recognized as landlords by the new settlement. The proprietary rights of the soil was vested in them in perpetuity, and, after assessment, the rent to be paid to the Government by the zemindars was permanently fixed. The advantage of this system was that it saved the Government much trouble and difficult inquiry, and it secured a loyal landlord class. But the fuller knowledge brought by the lapse of years has proved that the zemindari settlement had in many cases ignored the immemorial rights of the tillers of the soil. Further, it prohibited the Government from participating in the profits accruing from increased value of the soil, and even from the bringing of new land under cultivation. Finally it left the path open to oppression of the tenant by the zemindar, and experience shows that a resort to judicial redress is often prevented by intimidation. Hence the measure has turned out to be a mine of wealth to a small landlord class, but both the government and the millions have been put at a disadvantage. A more tentative settlement would have been wiser in 1790: more intimate knowledge of local conditions would have eventually made possible a more impartial system. With all these

defects however, the measure introduced order and certainty in place of uncertainty and disorder. The country had greatly suffered in previous years from capriciousness of tenure.

In the area of foreign affairs Cornwallis endeavoured to pursue as far as he could the policy of non-intervention, which the authorities at home so much desired.

The "Country Powers." When he arrived in 1786 Madhoji Sindhia was rapidly becoming the arbiter of the north, and Tippoo was incontestably the most powerful sovereign in the south.

* In the case of jagirdars it was, of course, more conspicuously so.

The Sikhs were consolidating their confederacy in the Punjab, with the double advantage that no invasion from Central Asia or Afghanistan was to be apprehended, and a limit was set upon the predominance of Sindhia. Still that able adventurer had emerged with undiminished prestige from the last great Mahratta war, and was steadily pursuing a policy of ambition independently of the Peishwa and the other great

Mahratta chiefs. In 1784 he was invited to interfere in the domestic party feuds at Agra. The Emperor conferred upon him the office of Commander-in-Chief and virtually invested him in the

executive authority of the Mogul Crown. Henceforward he rapidly increased his possessions and his armaments. He exacted tribute from the Rajputs and conducted numerous warlike operations, not uniformly successful, against their chiefs. His unscrupulous Mohammedan rivals he kept at bay, and he proved to be a very capable and faithful supporter of the aged Emperor, Shah Alam. His armaments were increased and improved by the military experience of the Comte de Boigne, who organised a disciplined force of nearly 30,000 men commanded by European officers. With a vast host of Mahratta cavalry in addition, Sindhia was indisputably the master of Hindustan, a possible danger to the English, and a constant aggravation to the other members of the Mahratta confederation. His outward attitude towards the British was friendly, though had a favourable opportunity offered, he would doubtless have attempted their overthrow. So long, however, as

he confined his attentions to Hindustan, Malwa, and the Deccan, Cornwallis saw no reason to break through his role of neutral. Sindhia alone seemed able to preserve order in the North, and his very predominance broke up the union of the dreaded Mahratta confederacy.

But with Tippoo the case was different. He was an implacable foe of the British, and would clearly provoke hostility on the slightest pretext. In 1780 Cornwallis found him waging war on the Nizam and the Southern Mahratta powers. The former was incensed by the encroachments of Mysore, the latter amongst other grounds of complaint were



ASAF JAH, FIRST NIZAM OF HYDERABAD

From a picture in the Victoria Memorial Collection.

Relation with
Mysore.

indignant at Tippoo's brutal persecution of Hindus. The war ended favourably for Tippoo, however, and the despot turned himself afresh to the extirpation of Hinduism in the south. Knowing that the extermination of the British was the Sultan's ultimate object, Cornwallis, in return for a long promised territory the Guntur Sirkar, around Masulipatam, undertook to assist the Nizam in the event of a fresh war between him and Mysore. Tippoo soon

Third Mysore War,
1790-2.

brought matters to a crisis by attacking Travancore, which had in 1784 been placed under British protection. The gage of battle was taken up by the Nizam, and the British and the Mahrattas promised their assistance. But neither ally rendered Cornwallis any valuable assistance. The war was decided in three campaigns. In 1790 General Medows, though hampered as usual by the unpreparedness of Madras, captured Coimbatore, but was not sufficiently strong to undertake further offensive operations. In 1791 Cornwallis, who himself held the office of Commander-in-Chief in Bengal, arrived on the scene, marched up the Mysore plateau, and captured Bangalore. He arrived before Seringapatam in May, but the lack of supplies dictated a retreat. In the following year he took the field with a larger and better equipped army than the English had ever possessed before in India. Tippoo might well say "It is not what I see of the resources of the English that I dread, but what I do not see." The campaign was short and decisive. Within a month, Seringapatam had been invested and its redoubts captured. The fall of the capital was imminent, when Tippoo submitted at discretion. Half his territory was surrendered, and, after the Nizam and the Mahrattas had been rewarded, Cornwallis reserved as British territory the districts of Dindigul, Banmahal, and Malabar. This territorial expansion was condoned in England, because Cornwallis

The terms of peace,
1792.

was known to oppose an aggressive policy, and it was at last realised that the curtailment of an aggressive native ruler's dominions was the only certain guarantee of peace. But even the failure of this war, did not convert Tippoo to a policy of peace. He entered upon intrigues with the ruler of Afghanistan to invade India and exterminate all infidels, and he invited the French Directory to co-operate in the destruction of British power in India. These intrigues, however, and the renewed French peril conjured up by the Revolutionary and Napoleonic wars, belong to the Governor-Generalship of Wellesley. They resulted in the final overthrow of Tippoo, and the further expansion of British power in India.

Lord Cornwallis left India in 1793, and was succeeded by Sir John Shore, a Bengal Civilian. Shore had done good work in connection with the land settlement, but he lacked the self-reliance and initiative necessary to a supreme ruler.

Sir John Shore,
Governor-General,
1793-8.

He incontestably stretched the policy of non-intervention to breaking point. When the Mahrattas attacked the Nizam, Britain's ancient ally, he refused assistance. All the Mahratta Chiefs mustered to the campaign, and the confederation was invincible. The

Nizam sustained a crushing defeat at Kurdla, and submitted to most humiliating terms. But in after years the policy of supporting the Nizam was again adhered to; the Mahrattas were never able to annex Haiderabad, and there is little doubt that the continuance of that

Battle of Kurdla,
1795.

dynasty in India would have been impossible, but for British aid. In 1794, the Great Madhowji Sindhia had died, and his successor being less talented, was less likely to become a source of danger. In 1795 the Peishwa Madhu Rao II died, and with the accession of Baji Rao II began a period of confusion and jealousy which greatly weakened the Mahratta Confederation, and eventually led to its overthrow by the British.

Sir John Shore effected at least one sound settlement. Misgovernment had for years been rife in Oudh, and in 1787 the Governor-General, presuming upon the responsibility which rests with the protecting power, interfered in the succession. On

Satisfactory intervention
in Oudh, 1797.

the death of Wazir Ali, his brother, instead of a reputed son, was offered the throne in return for a treaty restricting his powers of action. A larger British army was to be maintained in Oudh, and independent diplomatic relations were forbidden. Here then British supremacy was most definitely asserted, with great advantage to the subjects of the Nawab. When in 1798, Shore handed over his office to Lord Mornington (Marquess Wellesley), there was peace in India, but British prestige had suffered diminution in the Deccan, and the clouds of Mahratta ambition together with the continued hostility of Tippoo obscured the brightness of the political horizon.

Lord Wellesley brought to the task before him a thorough knowledge of Indian politics, a powerful intellect, and a bold unconquerable spirit. Gifted like Warren Hastings with a genius to conceive and a will to execute, he pursued a vigorous forward policy, and in the short space of seven years by conquests

Marquess Wellesley,
1798-1805.

and alliances he raised the East India Company to a position of undoubted supremacy throughout India. The policy of non-intervention, approved of by the Directors and carried out by Shore, was clearly not only mistaken from the point of view of prestige, but dangerous by reason of French intrigues. Napoleon had successfully landed in Egypt, and regarded the reduction of that valley of the Nile as merely a preliminary to an Indian expedition. At such a moment the growth of a French party in the Councils and armies of the native princes was a danger too real to be ignored. The Nizam, having been refused assistance by Sir John Shore, had organized a French force under Raymond to guard him against the Mahratta aggression.

Position in India,
1798.

The young Sindhia, Doulat Rao, possessed in the Comte de Bogue a skilled and trusty soldier who had organized a powerful fighting force under French instructions and control. Finally Tippoo had French officers in his pay, and was negotiating an alliance with the French for the purpose "of expelling the British nation from India." Faced by such manifold perils, the new Governor-General acted wisely and promptly.

Haiderabad was converted from a probable enemy into a certain friend. The tact and courage of Malcolm--afterwards Sir John Malcolm, and Governor of Bombay--prevailed upon the Nizam to place himself once again plainly under British protection. The French

*Treaty with the Nizam,
1768.*

force was disbanded and replaced by 6,000 sepoys officered by Englishmen, to be paid out of the Nizam's treasury. There was no longer any danger of an alliance between the two great Mussalman princes of the south, and, when the decisive Mysore War was fought in the following year, the Nizam lent assistance and shared in the spoils of conquest. The Mahrattas were meanwhile occupied with internal rivalries, so that for the moment no danger was to be apprehended from them.

*Relations with
Tippoo.*

The conduct of Tippoo, however, demanded immediate attention. It was clear that he only awaited French succour before opening hostilities against the British. Every effort on Wellesley's part for accommodation was met by evasion and delay. There being no doubt of Tippoo's intentions, the Governor-General was authorized from London to declare war. Everything pointed to the advisability of striking a rapid blow, and Wellesley's strenuous preparations made such action possible. The war began early in 1799. Mysore was invaded on two sides, by a Bombay army from the Malabar Coast, and by the

*Fourth Mysore War,
1799.*

main army from Madras. Both were admirably equipped, and General Harris who commanded the Madras army had the invaluable advice of Colonel Arthur Wellesley, brother of the Governor-General, and afterwards Duke of Wellington. Tippoo displayed in the campaign little of the military ability of his famous father. He attacked each army in turn, but was heavily defeated both at Sedasir and Malvalli. Placed on the defensive he failed to prevent the junction of the invading armies, and was forced to fall back for the protection of his capital. Early in April the siege of Seringapatam began. The defences were formidable, but the lateness of the season and the growing lack of adequate supplies rendered a protracted siege out of the question. On May 4th, the town was carried by storm, Tippoo himself being slain in the fierce fighting which took place within the ramparts. With the fall of the dynasty resistance soon ceased throughout Mysore. There was little desire to defend the

*Death of Tippoo and
Settlement of the
conquered country.*

family of a Mohammedan usurper, and indeed the country greatly profited by the conquest. Wellesley displayed great skill in dealing with the difficult question of settlement. The security of Madras demanded that a state of the size and power of Mysore should cease to exist upon her flank. Reason pointed to a considerable indemnification for the loss and trouble of the war. But the Nizam had lent assistance and had to be rewarded, while the Mahrattas, though they had held aloof, would have proved recalcitrant, had Haiderabad been unduly aggrandised. Mahratta jealousy would also have been aroused had the greater part of Mysore been reserved for the Company. Wellesley solved the

difficulty by leaving intact the heart of Mysore, and reinstating the ancient Hindu dynasty on the throne, though under complete British control. Mysore practically took its present shape on this occasion. The Canara country was reserved to the British, likewise the forts commanding the passes, including Seringapatam itself, and the three districts in the south, which linked together the possessions of the Company on the two Coasts. The Peishwa was offered the north-west districts of Mysore on condition that he should enter into definite agreement to have no dealings with the French. The offer was refused, and the declined territory was divided between the British and the Nizam. The Nizam also obtained a considerable slice of north-east Mysore. The new Mysore State was therefore completely encircled by the territories of the two allied powers. The conquest of Mysore thus not only overturned a dangerous foe, and dealt the death-blow to French hopes of renewed intervention, but it vastly increased the dominions and revenues of the Company and raised British prestige to a pitch hitherto unknown. The Hindu population of the south was at the same time conciliated by the quite unexpected restoration of a native dynasty, and the friendship of the Nizam was guaranteed by gratitude for benefits conferred. On all these grounds Wellesley's settlement deserves the highest praise. He reaped the fruits of victory as skillfully as he had planned the warlike operations which secured it.

In the following year the Nizam himself was brought more completely under British control. Threatened by a probable Mahratta invasion in difficulties for money and troops, he secured the benefits of unconditional British protection, but at the sacrifice of territory and sovereign rights. By the defensive alliance now entered into he agreed to submit all disputes to

*Subsidiary alliance with
the Nizam,
1800.*

British mediation, and received an increase of British forces in return for the cession of his share of Mysore, the revenues of which he had been unable to collect. Thus, did Haiderabad acquire its present status as a feudatory principality, and the Mahrattas were the only independent power left in the Deccan.

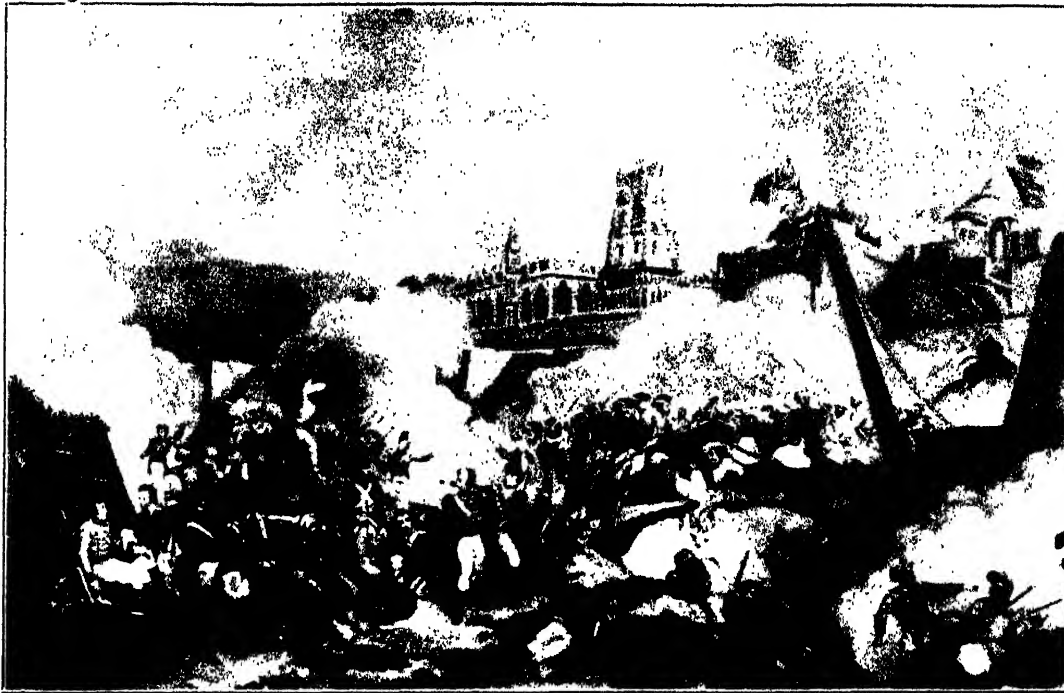
Great Britain through the East India Company was now rapidly achieving a position of predominance

*Extension of the British
Protection.*

such as had been held by no one power in India since the death of Aurangzeb. The extension of the British protectorate over all the Native States with which his Government had any connection was now the avowed object of Lord Wellesley. That the paramount power should establish such an ascendancy, was both natural in itself and strictly in accordance with the traditions of Indian politics. The instrument to be employed was a system of subsidiary treaties so framed as to deprive the Native States "of the means of prosecuting any measure, or of forming any confederacy hazardous to the security of the British Empire, and to

*The Policy of Subsidiary
Treaties.*

enable us to preserve the tranquillity of India by exercising a general control over the restless spirit of ambition and violence, which is characteristic of every



THE LAST EFFORT OF TIPPOO SULTAN IN DEFENCE OF THE FORTRESS OF SERINGAPATAM

From an Engraving in the Victoria Memorial Collection.



THE STORMING OF SERINGAPATAM.

From an Engraving in the Victoria Memorial Collection.

Asiatic Government."* The predecessors of Wellesley had employed this method of extending their influence over neighbouring states, but none had used it so widely or so successfully. A subsidiary treaty still

Condition of Oudh.

more important than that with Haiderabad was concluded with the Nawab of Oudh in 1801. In accordance with Warren Hastings barrier policy, Oudh constituted a buffer state between the British possessions in the north-east and the turbulent elements, whether Marhatta or Afghan, in the north-west. But under the existing regime Oudh was a very valuable outwork of Bengal. Under a series of treaties a British force was maintained in Oudh, but it was not sufficiently large to secure the country against internal disorder or external attack. The Nawab maintained "an unmanageable rabble" of his own, and his civil administration was hopelessly corrupt.

In view of these evils a new subsidiary treaty was forced

upon the unwilling ruler of Oudh in a rather dictatorial manner. The turbulent troops were disbanded and the British contingent increased. As was customary in these treaties, assignments of land were made as a guarantee for prompt payment of the subsidy which maintained the troops.

The increase of British troops now required an increase of subsidy, which the Nawab in the disordered State of his finances could certainly not have paid. The Frontier Provinces—Rohilkhand and the Doab between the Jumna and the Ganges—were therefore demanded by Wellesley in lieu of subsidy. Further, the right of the British Government to advise on internal administration was claimed, and, in the case of Oudh, now for the first

time conceded. The Nawab was virtually forced to accept this treaty, whether he wished it or not, and the high-handed measures of Wellesley were severely criticised by the Directors at the time as also by a number of historians since his day.* It must be remembered, however, that the Nawab Vizier might, legally and justly, have been completely deprived of his throne after the battle of Buxar nearly forty years before. Since that day the government of Oudh had grown steadily worse, nor did it even remain a strong de-

ensive position, which had been the main *raison d'être* of its combined existence. The suzerain power was clearly in the last resort responsible, and responsibility to be effective involves control. It is not necessary therefore to



RAGONATH ROW BALLAIER: PUNDIT PURDHAN, PRINCE OF THE MAHRATTA EMPIRE.

New Subsidiary treaty with Oudh and Cession of Territory, 1801.

* *Chosen*. Selections from the Wellesley despatches.

* The question is well and fairly treated in Hutton's Wellesley, Chap. II. (Rulers of India Series).

resort to the argument of political necessity in justifying the principle now applied. The treaty was justified by the anarchical condition of the country and it was vindicated by results. There is ample evidence that the population of Oudh henceforth, for a time at least, enjoyed a greater share of happiness and prosperity, while the same is true *a fortiori* of the newly annexed districts. By this very annexation Oudh was rendered safe from foreign attack, and the defensive position of the Company's territories was vastly strengthened. The strategic value of the new acquisitions was conclusively shown in the next Mahratta war: they would have been of equal service in the case of Afghan invasion or Sikh aggression.

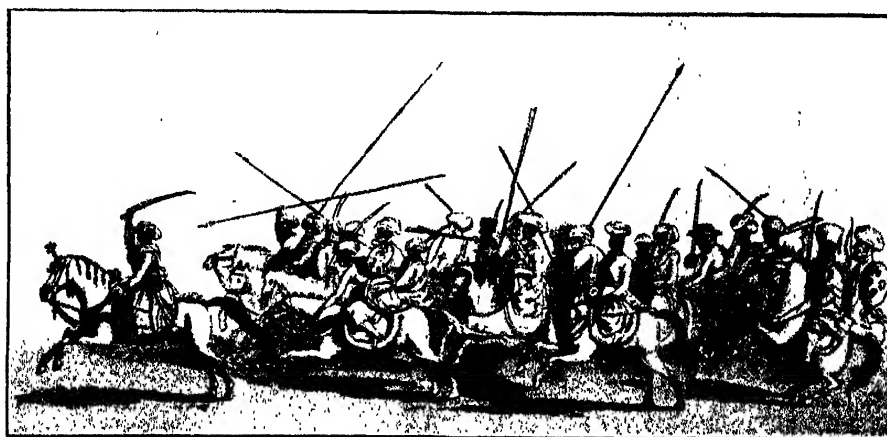
In other quarters, - Surat, Tanjore and Arcot, the already existing British ascendancy was converted into direct dominion. In Tanjore and Surat disputed successions were made the occasion for intervention. In Tanjore, a 'protected state,' the country had long groaned under

Rulers of Arcot and Tanjore deprived of governing rights.

actual power. The new Nawab retained his title and dignity, and the Government of Madras took over the entire administration of the State. With the disappearance of the anomalous and troublesome dual system, the prosperity and the revenues of the country rapidly advanced.

The complete subordination of Mysore, Haiderabad and Oudh, to British domination left the Mahrattas, the only independent native power of any importance in the peninsula. This restless and turbulent people ruled by rival chieftains nominally confederate under the Peishwa, was bound sooner or later to come into conflict with the growing British power. The first Mahratta war, conducted so ably by Warren

Hastings, had conclusively shown that the British were a power to be reckoned with, but the formidable nature of Haider Ali's attack in 1780 had rendered peace with the Mahrattas desirable at almost any price, so that the great Mahratta chiefs emerged from the war with territory unimpaired and prestige not



ADVANCED GUARD OF MAHRATTA ARMY COMING TO JOIN EARL CORNWALLIS,
NEAR SPRINGAPALAM 26TH MAY 1791

From Major Diron's "Campaign in India."

misgovernment. Wellesley coupled his recognition of an heir with a treaty which transferred the entire administration, civil and military, to the hands of the suzerain power. The same course was adopted in Surat, where there lived a large European community on strained terms with the Nawab. In the Carnatic the system in vogue since the British had in the Anglo-French wars placed Mahommed Ali on the throne had been one of dual control, and it had worked as badly as in Bengal. The administration in the Nawab of Arcot's hands had been conducted of late with notorious incapacity, the reigning prince was sunk deep in debt, and to crown all, he was proved to have entered upon a treacherous correspondence with Tippoo of Mysore. Action was not, however, immediately taken, but on the death of the Nawab (1801) a disputed succession of the usual kind occurred, and had to be settled by the protecting power. An heir was recognised, but only on condition of sacrificing all

seriously reduced. During the ensuing twenty years many changes had taken place in Maharashtra. The great Mahdoji Sindhia died and was succeeded by Doulat Rao. A new Holkar, Jeswant Rao ruled in southern Malwa after a period of great confusion. Poona also witnessed important changes. Baji Rao, the son of Raghoba, became Peishwa, and soon alienated many of his staunchest supporters. Nana Farnavis, the shrewd minister who had dominated Mahratta politics for so long, died in 1800, whereupon the State fell into unutterable confusion. Intrigues and campaigns succeeded each other with bewildering alternation; more especially did Sindhia and Holkar struggle for supremacy, the Peishwa being merely the sport of the contending factions. Wellesley sought to entangle the Peishwa in his net of subsidiary treaties, with the object of extending the Pax Britannica throughout the Deccan. Baji Rao, however, would not treat and, as we have seen, refused to

letter his independence of action even for a share in the spoils of Mysore. But when in 1802 Holkar defeated the forces of the Peishwa and his Protector Sindhia, under the very walls of Poona, Bají Rao's thoughts inclined him, like Raghoba a generation before, to seek British aid for his restitution. While a rival was being placed upon the throne at Poona, the Peishwa fled to Bassein and there concluded with the

Treaty of Bassein,
1802.

certain Mahratta districts were acceded in perpetuity for their payment. The Peishwa bound himself to enter upon no wars and make no treaties without consultation with his new allies. These were the usual provisions of the subsidiary treaties of the period; they gave the British no share in the internal administration, but indubitably degraded the Peishwa to the position of a protected prince. Moreover, in view of the fact that the Peishwa was the titular head of the Mahratta confederacy, the treaty of Bassein had, without exaggeration, been described as "a formal abrogation of Mahratta independence." The Treaty was strongly disapproved of by Lord Castlereagh, President of the Board of Control, as tending to involve the British in wars and intrigues, of which the end could not be foreseen. It did lead to war, but a careful study of the situation in 1802 will show that war was inevitable in any case. A duel between the two great powers was an

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was, and the Mahrattas above all things desired to pursue their internal feuds, and their external forays without interference. All that the treaty did was to provide an occasion for the outbreak of a war which was bound to come. The Peishwa was reinstated in power by British troops, and the Mahrattas began to combine against the foreigner who was so unmistakably extending his influence over the very stronghold of the Mahratta race. Holkar, though hostile, hung back, and the Gaekwar remained neutral. But the Bhonsla and Sindhia co-operated with the purpose of forcing the Peishwa from his British alliance. Arthur Wellesley, appointed political agent and military commander at Poona, required the chiefs to retire to their territories in peace. They refused, and war was the result.

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But for years the young Doulat Rao Sindhia had been intriguing and campaigning in the Deccan, so that, sulk as Holkar might, two great chieftains, Bhonsla and Sindhia, were able from the outset to act in conjunction in the Deccan. Besides his southern forces Sindhia had in his own territories a still more formidable army, that compact Europeanised force organized by de Boigne and now commanded by Perron, his successor. Perron was deficient in capacity for command on a large scale, and shortly left his master's service, but the army of the north remained, and its resistance was expected to be formidable. As in the

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horsemen, in grievous want of supplies, constantly delayed by impassable rivers, it was a miracle that the small and inefficient force was not completely destroyed. The retreat became more and more disorderly, and it was only a routed remnant that staggered into Agra, fifty days after the retreat had commenced. This was the most signal disgrace inflicted on the British arms since 1780, and its effect on the prestige and influence of the Company was instantaneous. Holkar hurried northwards and laid siege to Delhi, the Raja of Bhurtpur entered into negotiations with the conqueror, and the remaining Mahratta chiefs were preparing to rise. But the triumph was short lived. Holkar failed to take Delhi and Murray again advanced upon his capital. Holkar attempted a diversion

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Wellesley had on several previous occasions been subjected to the strong censure of his nominal masters. In consequence of these undeserved rebukes he had actually resigned in 1802, but the threat of resignation

Wellesley's supersession,
1805.

soon brought the Directors to their senses, for they well knew that no other statesman of equal ability could be found. But the first Mahratta war brought a renewal of adverse criticism, and the events of 1804 produced panic and condemnation. The alarm at the India House spread to the Ministers of the Crown and "Cornwallis, now sixty-seven years of age, was entreated to go out once more and save India, by reversing the entire policy of the headstrong Governor-General." Just as Wellesley's policy was on the point of being vindicated by the final overthrow of Holkar, he found himself superseded, and returned to England to share the obloquy meted out to so many of the Company's greatest servants. Parliament, however, refused to countenance the condemnation of his government which the Directors forcibly expressed, and he was saved at least the fate of Warren Hastings. Not only had his forward policy of expansion and subsidiary alliances met with censure; he had also displeased the Directors by the construction he placed upon the Company's position. He refused to regard

fetter his independence of action even for a share in the spoils of Mysore. But when in 1802 Holkar defeated the forces of the Peishwa and his Protector Sindhia, under the very walls of Poona, Bajī Rao's thoughts inclined him, like Raghoba a generation before, to seek British aid for his restitution. While a rival was being placed upon the throne at Poona, the Peishwa fled to Bassein and there concluded with the

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Holkar brought to bay. Final operations of the War.

by pillaging the Doab, but he was met and defeated at Deeg by a strong British force under General Fraser. Lake failed completely to take Bhurtpur, but his flying columns pursued and dispersed the forces of Holkar, until that chief took refuge in the Punjab, from which country he returned only to sign a treaty of peace. But meanwhile Wellesley's regime had come to a violent end, and the peace when concluded in 1806 was not sufficiently severe to curb the aggressive temper and the predatory instincts of Holkar. The unwise generosity of Wellesley's successors will be shortly noticed, it sprang from a most untimely return to the impossible policy of non-intervention so dear to the timid minds of the Company's Directors.

Wellesley had on several previous occasions been subjected to the strong censure of his nominal masters. In consequence of these undeserved rebukes he had actually resigned in 1802, but the threat of resignation

Wellesley's supersession, 1805.

soon brought the Directors to their senses, for they well knew that no other statesman of equal ability could be found. But the first Mahratta war brought a renewal of adverse criticism, and the events of 1804 produced panic and condemnation. The alarm at the India House spread to the Ministers of the Crown and "Cornwallis, now sixty-seven years of age, was entreated to go out once more and save India, by reversing the entire policy of the headstrong Governor-General." Just as Wellesley's policy was on the point of being vindicated by the final overthrow of Holkar, he found himself superseded, and returned to England to share the obloquy meted out to so many of the Company's greatest servants. Parliament, however, refused to countenance the condemnation of his government which the Directors forcibly expressed, and he was saved at least the fate of Warren Hastings. Not only had his forward policy of expansion and subsidiary alliances met with censure; he had also displeased the Directors by the construction he placed upon the Company's position. He refused to regard

it merely as a trading Company, while even in the matter of trade he declined to recognise the absolute monopoly of the East India Company. Further, he was rightly discontented with the insufficient training possessed by the Company's servants. He instituted a College in Bengal for the training of civilians, and though his views eventually found recognition in the foundation of Haileybury, they were disavowed with contumely by the Directors, and the college which he had founded with such fair auspices was ordered to be closed. On the question of patronage too he was at discord with the Directors and even the Ministers at home. He refused to provide lucrative posts for incompetents simply on the ground of interest, and he unflinchingly pursued a policy of rewarding only industry and capacity. But time has amply vindicated the policy of the great pro-Consul in all its branches. India since the downfall of the Mogul Empire had been subjected to the scourge of war and anarchy for lack of a supreme power. Wellesley proclaimed both in word and deed the principle of political supremacy, and he seized that supremacy for the only power capable of wielding it. He once for all shattered all hopes of a French reconquest, and he reduced the native princes to a subordinate position such as could give no scope to the intrigues of a foreign power. He re-arranged the map of India on a basis which ensured peace, by circumscribing the Mahratta chieftains, by connecting together the scattered British possessions and by guaranteeing the territories of petty states. "His settlement laid out the territorial distribution of all India (excepting the Punjab and Sindh) on the general plan which was followed for the next forty years, and which survives in its main outlines to this day."* The broad results of his policy are most forcibly expressed in his own words. A general bond of connection is now established between the British Government and the principal states of India, on principles which render it the interest of every state to maintain its alliance with the British Government, which preclude the inordinate aggrandizement of any one of those states by an usurpation of the rights and possessions of others, and which secures to every state the unmolested exercise of its separate authority within the limits of its established dominion under the general protection of the British power."†

(v.) GOVERNORS-GENERAL AFTER WELLESLEY. COMPLETION OF DOMINION.

India now obtained nearly ten years of peace, but the strict carrying out of a reactionary non-intervention policy left great problems for settlement, and laid up great trouble for the future. It would have been wiser to complete Wellesley's schemes once for all, by the complete discomfiture of Holkar and his allies, and by the

His differences with the Directors and his principles of administration.

His work as a pacificator and Empire builder.

preservation of the alliances Wellesley had contracted. Cornwallis, however, was of a different opinion, and the instructions he brought from London required him to refrain from incurring fresh political liabilities, and as far as possible not to extend his action beyond the actual limits of the British dominions. The subsidiary alliances were, wherever possible, to be cancelled, and the protection of the minor chiefs withdrawn. Cornwallis wished to restore Gwalior and even Delhi to Sindhia, and also to withdraw the protection promised to the Rajput princes. Such a policy would only have been construed as weakness, and could but serve to strengthen the Mahrattas for another duel. It is perhaps fortunate that Cornwallis died before his purpose could be carried out. No provision having been made for such succession, Sir

Policy of non-intervention.

Sir George Barlow, 1805-7.

George Barlow, of the Bengal Civil Service, became Governor-General. He was not prepared to reverse the policy of Wellesley as completely as his immediate predecessor had intended, but he had been freely converted to the doctrine of non-interference, and did a considerable mischief during the two years of his rule. The terms of the treaty with Sindhia were modified; Holkar when finally obliged to submit to Lake (1806) was granted far more lenient terms than he had any right to expect, and such as deluded him into attributing fear of himself to the British Government. Finally the Rajputs and other chiefs of the north who had loyally refused to assist Holkar against the British, were disgracefully deserted and left to suffer the vengeance of Holkar's marauders. That chieftain, well knowing that he no longer had a Wellesley to deal with, broke the terms of the treaty with the greatest effrontery and plundered as far as the Punjab. His example was followed by those roving bands of mounted freebooters the Pindaris, who were steadily growing in number, and who, after plunging Central India into the most terrible anarchy, poured down upon British territories, and aroused the avenging wrath of Lord Hastings ten years later. But had Wellesley remained in power a few months longer none of these disastrous events would have occurred, for the complete overthrow of Holkar and his Pindari allies would have effected a lasting pacification of the country. The attempt to pursue a neutral and isolated policy egregiously failed. In some matters, however, the Governor-General evinced a laudable firmness. The authorities in England would have liked to cancel the subsidiary treaties with the Nizam and the Peishwa: Barlow, however, saw the necessity of maintaining them if the British public faith was not to be entirely discredited throughout the peninsula. He at least recognised the need for firmness in the area where British control had been effectively established. His tenure of office was rendered memorable by the critical mutiny at Vellore, in Madras, the first sepoy mutiny of any significance. In many respects the causes of the outbreak resembled those which brought about the great mutiny half a century later. Vengeance for the murder of European soldiers was

Failure of his policy.

Over-lenient treatment of Holkar encourages fresh trouble.

Cornwallis' second administration, 1805.

* *Lyall, Rise and Expansion, etc., p. 258.*

† Despatch to the Directors, July, 1804.

promptly meted out by the execution of the ringleaders, and the mutiny was completely suppressed, though its lessons were not seriously taken to heart.

In 1807 the first Earl of Minto arrived to assume the reins of office, Barlow not having sufficiently commended himself to the English ministry. Minto was a capable

Lord Minto,
1807-13.

statesman, who had held the Presidency of the Board of Control for some years, and was therefore well grounded in Indian affairs. He probably realised to the full the mistake of a non-intervention policy, but on the whole his régime conformed to the political doctrine of the moment. Excepting some isolated cases of activity the conditions in India remained unchanged. Lawlessness and anarchy were rampant in the centre, and it could not be long before the elements of disorder should find themselves in conflict with the British power. Bundelkhand was one of the disordered districts, but it differed from the rest in being a British territory, having been received from the Peishwa in 1803, in

Pacification of
Bundelkhand.

exchange for the less convenient Deccan districts ceded by him in the Treaty of Bassein. A troublesome series of warlike operations was conducted in this difficult country for five years, and the more recalcitrant chiefs did not submit until the capture of the great hill fort Kalinjar in 1812. In one important case Lord Minto showed himself willing to protect defenceless princes against powerful Native States. The Sikhs had by the time greatly strengthened and enlarged their confederation in the Punjab, and the ambitious Maharaja Ranjit Singh was ruling at Lahore. In 1808 the Cis-Sutlej Sikh princes, threatened with absorption at the hands of their

The Sikhs.

powerful neighbour, implored British protection. Minto sent a skilful envoy to Lahore, and Ranjit withdrew all Cis-Sutlej claims in return for a British promise not to interfere with him in the Punjab. Thenceforward he remained a good ally of the British Government; no danger was to be apprehended from the Punjab itself, and the Sikh monarchy was a powerful barrier between India and any ambitious power in Central Asia.

Much of Lord Minto's attention was devoted to strengthening the approaches to India. French attack was no longer to be feared by sea: Trafalgar in 1805 had shattered the maritime power of Napoleon.

India in relation to
European politics.

Further, Mauritius, the only strong French naval base in the East, was captured by an expedition from India in 1810. But with the beginning of the nineteenth century there began to arise apprehension of land attack, and no sooner did the Peace of Tilsit (1807) unite Napoleon and Alexander in alliance, than a Franco-Russian land expedition to

Danger of a land
attack.

India was actually planned by the French Emperor. The year 1806 saw the beginning of British relations with Persia. The Shah, threatened by Russia and subsequently by Russia's new ally, gladly received a British envoy, and agreed upon a treaty of friendship, whereby he promised to forbid the passage of any European force through his territories,

while the British promised assistance in case his territories were invaded. The possibility of an overland attack, and the immediate necessity of counteracting the French demonstrations was also partly responsible for the mission to Lahore, and it also brought about missions to Kabul and Sindh. The latter was of no great value, and the former was futile enough as the

Persia.

Missions to Kabul and
Sindh.

Afghan King Shah Shuja was in the throes of a civil war, and, as it turned out, on the eve of expulsion from his kingdom. This immense display of diplomatic energy was a foretaste of 19th century politics, but the schemes were for the time dropped as events in Europe heralded the downfall of Napoleon and brought Russia once more into alliance with Great Britain. It was not until 1828 that Russia made a long stride eastward and revived the anxieties of Indian statesmen. But the mere attempt to extend diplomatic activity over so wide a range in Asia indicated clearly enough the consciousness of British paramountcy in India. Although for the moment the consolidation of British power in India might be deferred, the beginning of the nineteenth century had witnessed the establishment of an undisputed ascendancy within the peninsula. That

Capture of the Dutch
East Indies.

there was no immediate danger of war with any of the still independent native princes was evident from the voluntary departure of the Governor-General to Java in 1811. Holland was then in alliance with France, and the Dutch ships issuing from the harbours of Java and the Celebes committed constant acts of piracy upon the East India Company's fleets. Such acts touched the Directors and Proprietors in their pockets, so that permission was given to attempt the subjugation of the Dutch East Indies. A fleet of 90 sail carrying 6,000 troops negotiated the Straits of Malacca, captured all the Spice Islands, and finally after some fierce fighting took Java, the most splendid monument of Dutch colonial enterprise. It was restored at the peace of 1814, but some compensation was gained through the foundation of Singapore by Sir Stamford Raffles 4 years later. Soon after Lord Minto had returned from Java, he learned to his surprise that he had been superseded at least a year earlier than he had expected. The Prince Regent was anxious to confer

Lord Hastings,
1813-23.

the lucrative appointment of Governor-General on his favourite, Lord Moira, generally known by his later title of the Marquess Hastings. Despite the somewhat dishonourable circumstances of his nomination, Lord Hastings proved himself to be one of the ablest of Indian rulers. Arriving in 1813 in his fifty-ninth year, he held office for ten years, and worthily upheld the Warren Hastings and Wellesley tradition. When he left England he was at one with the Directors and Ministry in condemning a forward policy, but no sooner did he reach India than he found the policy of non-intervention to be untenable. Lord Minto had strained at the leash, which bound him, Lord Hastings broke that leash and, under pressure of circumstances, followed in the footsteps of the great Wellesley by systematically extending British control over Native States.

In the very year of Hastings' accession to power the real nature of the Company's position in India had been powerfully asserted in Parliament. The decennial renewal of the Charter was preceded by a searching inquiry into the Company's administration of its territories, with the result that commerce was declared to be a purely secondary consideration. The Company's trade monopoly was cancelled, and it was urged to devote more attention to the development of its territorial revenues and the perfection of its administration. Amongst other measures of improvement the Company was for the first time required to set apart money for the education of natives. The responsibilities involved in territorial sovereignty were thus becoming more fully recognised, and Hastings came out to India pledged to purify and perfect the administration and to confer a fuller measure of the benefits of civilization upon the races subject to British rule.

India Act of
1813.

Abolition of trade
Monopoly.

But Lord Hastings was destined to devote his time to external policy and wars even more than to internal consolidation. The mistaken policy of aloofness which had characterised the last few years resulted in a series of aggressions which severely taxed the energies of the new Governor-General. Gurkhas, Pindaris, Pathans, Mahrattas, all challenged the British supremacy, and had to be dealt with by force of arms.

The first of these to move were the Gurkhas of Nepal. They were a strong military race, who, springing from an intermixture of the Hindus of the plains with Mongolian hill-tribes, had subdued the country known as Nepal some fifty years before. They had rapidly carried their arms along the southern slopes of the Himalayas to Sikkim in the east, and to the Punjab frontier in the west. Governed after 1805 by a group of powerful military officers, who held the King in tutelage, and possessing well equipped armies on the European model, the Gurkhas did not scruple to encroach upon British territory in the Terai. When in 1814 they occupied tracts belonging to Bengal, Hastings was obliged to reoccupy the districts with an armed force. A massacre of British police officers precipitated war, and "then ensued the first of those numerous expeditions into the interior of the great hill-ranges surrounding India, in which the Anglo-Indian Government has ever since been at intervals engaged." The Gurkhas were enterprising and warlike, and their inferior numbers were amply compensated for by the strongly defensive character of their mountainous country. The British troops had as yet gained no experience of hill warfare, and the task of penetrating a country with a frontier of 600 miles, through passes all of which were commanded by the enemy, was of no easy achievement. It is not surprising that disaster was experienced in the early stages of the war. Hastings, who like Cornwallis was his own Commander-in-Chief and a very distinguished soldier, planned and controlled the campaign. Four

Aggressions on the British
Power.

The Nepal war,
1814-16.

Peace of Segowli,
cessions of territory
1816.

columns were to enter Nepal, two at the western end, and two from Behar in the East. Of these, three either suffered reverses or were held at bay, the fourth alone, the western column under Ochterlony, the hero of the war, made some small progress. During the winter of 1814-15 operations were suspended for want of reinforcements, and the check to British arms created such excitement in India that Mahrattas and Pindaris were on the point of rising. With the new year, however, came a welcome change of fortune. Ochterlony by skilful manœuvring isolated Amar Singh, the chief Gurkha General, and captured his army in the fort of Malaon in the Simla district. The district of Kumaon was simultaneously occupied by another column and Nepal from the Sutlej to the Kali river submitted. The government at Katmandhu, however, refused to surrender, and a well planned expedition under Ochterlony, thereupon entered Eastern Nepal, turned the Gurkha positions and threatened the capital. There being no alternative, the Gurkha government submitted. A portion of the Terai as well as the territory west of the Kali was ceded, and the Gurkhas withdrew from Sikkim in the east, and Nepal was thus reduced to its present size. Notwithstanding this curtailment of dominion the Gurkhas have honourably maintained peace and friendship ever since, and for over half a century have supplied some of the best Indian fighting material to the British Government.

No sooner was the Nepal war concluded than Hastings found himself compelled to interfere in Central India. Since Wellesley's policy had been reversed the British Government had left all Central India, together with Rajputana, to take care of itself. The

Disgraceful condition of
Central India.

result proved to be a great increase of lawlessness and disorder. Holkar and Sindhia maintained no settled government in Malwa, which accordingly became the refuge of adventurers and restless spirits from all quarters. With the increase of the British dominion, these bands had been swollen by the arrival of disbanded troops from the new subsidiary states.

Pathans and
Pindaris.

They may roughly be divided into two classes, Pathans and Pindaris. The first, Mussalman Afghans, hired themselves out for fighting, and were of special service to the Mahratta chieftains. The second were largely of Mahratta origin, and lived by pillage as well as by fighting. The chief leader of the Pathans was Amir Khan, whom we have already noticed as the ally of Holkar in the third Mahratta war. Chitu, an able and enterprising leader, and by birth a Jat, was the chief captain of the Pindaris during the period we are now studying. Chitu had lent help to Sindhia on various occasions, and resided commonly in the fastnesses surrounding the Narbadda Valley, whence he issued forth to plunder in all directions. When Pindaris and Pathans chose to combine, they could bring a force of 60,000 men into the field. This monstrous organization, whose sole purpose was plunder and rapine, struck terror into the hearts of all but the most powerful Mahratta chieftains. The Rajput princes turned to the British as the paramount power, and 'the natural guardian of weak states,' but the pusillanimous policy of Cornwallis and Barlow

had disavowed any such responsibility. And yet it was clear enough, by precedent, by reason, and even by the claims of ultimate advantage, that on the British had fallen the duty of policing India. In 1812 the Pindaris had actually raided a British district in the neighbourhood of Patna, and Lord Minto was awaiting permission to intervene in Central India when he was recalled. His successor realized the danger to the full, and, even before the Nepal war, attempted to

Necessity of British intervention.

form a subsidiary alliance with the Bhonsla of Nagpur, as also with Bhopal and other minor princes near Bundelkhand. Meanwhile Pindari irruptions extended eastwards to Orissa, and George Canning, now President of the Board, practically allowed Hastings a free hand to deal with the situation. But the unrest created by the reverses in Nepal had meanwhile induced the Mahrattas to make another bid for

The Mahrattas threatening, 1815-16.

power. A subsidiary alliance was accepted by Nagpur in 1816, and the Gaikwar remained friendly, but the other members of the old confederacy, even the now subsidiary Peishwa, were animated by hostile intentions, and only waited an opportunity again to contest hegemony with the British. The shifty Baji Rao at Poona was constantly engaged in anti-British intrigues, and the feeling of his court was shown in no

Situation at Poona, 1815-17.

doubtful colours by the treacherous murder of the Gaikwar's pro-British minister in 1815. Mountstuart Elphinstone, a strong man and an able diplomatist, fortunately held the office of 'Resident' at Poona during these troublous years. He kept the British Government informed of the dangers ahead and prepared for all emergencies.

The crisis arrived in 1817. The Bhonsla was murdered, and his successor aimed at getting rid of British control. Trimbakji, the Peishwa's favourite, was fermenting an anti-British insurrection under his master's auspices.

Fourth and final Mahratta War, and Pindari Campaign, 1817-18.

Sindhia and Holkar were invited by Hastings to co-operate against the Pindaris, but they inclined rather to make a fresh bid for supremacy, and temporised until a fair opportunity should arise. But whatever the danger of Mahratta insurrections might be, the overthrow of the Pindaris could be no longer delayed. Combined operations, on an extensive scale, were projected by the Governor-General. An army of 120,000 men was split up into several divisions, each ordered to advance from different quarters into Malwa. The dispositions were so skilful that not only were the Pindaris forced to retreat, but Sindhia, finding

Operations Oct.—Dec., 1817.

Gwalior threatened on two sides, abandoned his hostile intentions and accepted an honourable treaty (Oct.). Amir Khan, finding the odds against him, agreed to disband his troops, and accepted the principality of Tonk. Meanwhile Holkar remained inactive, but conflicts took place at Poona and Nagpur. The Peishwa collected an army, sacked the Residency and attacked the British forces at Kirkee. The British, though outnumbered by ten to

one, took the offensive and routed the Peishwa's 25,000 men. The arrival of reinforcements made it possible to reoccupy Poona, and the Peishwa fled southwards. The success of these operations was largely due to the courage, and presence of mind, of the great Mountstuart Elphinstone. Nagpur

Bhonsla, Battle of Sitabaldi, November 1817.

meanwhile witnessed somewhat similar scenes. The British forces there were still smaller than at Poona, but when the Bhonsla not unexpectedly assumed hostilities, the attack of the British position at Sitabaldi was brilliantly resisted, and the Mahrattas became despondent. The conflict was the most brilliant in the war, and lasted eighteen hours. Reinforcements soon arrived, and the Bhonsla—Apa Sahib—surrendered. Holkar's fate was likewise sealed before the end of the year. He was a minor, and the Regent, a widow of the late ruler, inclined towards peace with the British. But the military chiefs resolved to strike a blow for independence. The Regent was murdered, and the army marched out to defy the British. At Mehidpur Sir John Malcolm, no less distinguished as a soldier than as a diplomatist, gained a decisive victory by means of bold offensive tactics, but not without considerable losses. By January 1818, therefore, the war had resolved itself into a pursuit of the scattered bands of Pindaris, and some final operations against Baji Rao, both of which were successfully accomplished. The Pindaris were hunted down and wiped out, and the Mahrattas were finally and indisputably crushed. Lack of union in policy and co-operation in the field had largely contributed to the overthrow of the Mahratta confederacy, but the brilliantly planned operations of the British Commander-in-Chief were mainly

Peishwa, Battle of Kirkee, November 1817.

responsible for the extraordinarily rapid downfall of a powerful group of enemies. Hastings had acted with commendable promptness and decision; he commanded the largest army which had ever taken the field in India under British colours, and he directed operations over a tract of country extending from Gujerat to Oudh, and from the Ganges to the Kistna.

Holkar, Battle of Mehidpur, Decr. 1817.

The settlement of the conquered territories was conducted on very liberal terms. Sindhia was left with virtual independence. His foreign policy would clearly be dictated by the British Resident, and the somewhat doubtful supremacy he maintained over the Rajputs and other chiefs was negated. But he suffered no further humiliation, and it was not until after the war of 1843 that the State of Gwalior sank into the subordinate position it now occupies. The other chieftains having actually taken arms, were more severely punished. Holkar accepted a subsidiary treaty and became a feudatory prince on the still existing basis. He resigned all claims in Rajputana. The Bhonsla Raja was dethroned, but a new ruler of

Pindaris Exterminated.

Conclusion of operations, 1818.

Settlement of the Country.

The Treaties. Sindhia.

Holkar.

the same family was deliberately chosen, though the state was morally and actually forfeited. It was not until the death of the last Bhonsla in 1853 without heirs, that the State of Nagpur was annexed to the British dominions. Meanwhile the subsidiary alliance established just before the war was kept up, and for several years the State was administered by the Resident. The only one of the Mahratta Chieftains to suffer forfeiture was the arch-traitor Baji Rao, who, since the treaty of Bassein, had persistently plotted against his protectors. Even within the Peishwa's dominions, the desire of maintaining native rule where practicable was evidenced by the wholly superfluous creation of a new principality of Satara for the main line of Sivaji's family which had long been mere puppets under the Peishwas. This new creation only lasted thirty years, being annexed to the British dominions in 1848 by the doctrine of 'Lapse.' With few exceptions, the settlement of 1818-1819 left the Mahratta boundaries as they exist to-day: the only great change of map in later years was brought about by the disappearance of Nagpur as a separate state. The settlement of Hastings ensured peace and prosperity to a large tract of country which had been continuously devastated by wars and misgovernment. The great ruling families were strictly bound over to keep the peace, and the feudatory bands which had assisted them were completely broken up. The British provinces were thus insured immunity for attack. The minor chieftains, Rajputs and others, were also taken under British protection, and could at last afford to devote themselves to internal development. The external affairs of all these States were controlled by British Residents responsible to the Governor-General, and the same officials could 'advise' on matter of internal management. Finally the system of subsidised British contingents placed the military command everywhere under the direction of the paramount Power. The great political settlement completed and consolidated the policy of Wellesley. British ascendancy extended from sea to sea: from the Himalayas to Cape Comorin. What portion of this vast territory was not under our direct administration was under our sovereign influence. In two quarters only was the frontier unstable, in the north-west where the Sikh kingdom had achieved formidable proportions under Ranjit Singh, and in the north-east where the Burmese were advancing on Assam. The British dominions were rounded off in these directions within the next thirty years, and meanwhile the successors of Hastings were able to devote themselves to the great internal reforms, which with further leisure he would doubtless have attempted. The last thirty years, beginning with the first reign of Lord Cornwallis, had been above all a period of expansion, a period when the disintegration of India invited and required the creation of a paramount Power. The

Bhonsla,

Annexation of Peishwa's dominions,

Creation of Satara principality.

Wellesley's assertion of ascendancy now completed,

British influence supreme throughout the Peninsula,

The introduction of sound administration the next desideratum,

Resignation of Lord Hastings, 1823.

Lord Amherst, 1823-8.

Relations with Burma.

Burmese aggressions.

1st Burmese War, 1824-6.

establishment of the British dominion had been extraordinarily rapid and glorious, but not less creditable was the period of pacific administration by which it was succeeded. What had been largely done in Bengal by Warren Hastings and Cornwallis was done in Madras during the first quarter of the 19th century by Sir Thomas Munro, and in Bombay a few years later by Mountstuart Elphinstone. A sound administration replaced corrupt government, a uniform land system replaced uncertain tenure. Good justice, civil and criminal, and, gradually, an efficient police, vindicated the establishment of British rule, and rapidly increased the prosperity of the country.* Such elementary improvements were the necessary precursor to wider schemes of education and public works. While the peaceful settlement of the country was being accomplished by a devoted band of civilians, Lord Hastings resigned his high office, having been virtually censured by the India House. He was succeeded in 1823 by Lord Amherst.

The era of peaceful development was now broken for a short period by a difficult and costly Burmese war. While the British dominion was being built up in India, several other powerful kingdoms had been founded on or beyond the Indian frontiers. Thus the development of a strong Nepalese monarchy, whose overthrow we have lately noticed, the formation of a powerful Sikh confederacy in the Punjab, the subjection of Afghanistan to the dynasty of Ahmed Shah, and the extension of the Burmese monarchy to the Bay of Bengal and to the frontiers of British India—all took place during the half century when Clive and Warren Hastings, Cornwallis and Wellesley, were laying the foundations and building up the enduring structure of British rule in the peninsula itself. Nepal had already been dealt with before the

accession of Lord Amherst to power: the solution of the Burmese problem fell to him, the conquest of the Punjab and the neutralization of Afghanistan were reserved for future rulers.

Before the time at which we have now arrived, the Burmese kingdom with its capital at Ava had absorbed the coast of Tenasserim, the territory of Pegu, and the old kingdom of Arakan immediately south of Chittagong. Finally the Burmese had subjugated the semi-Hindu kingdom of Assam, and were thus established on the frontiers of Bengal. Contemptuous of the British government, because ignorant of British resources, the Burmese pursued a policy of aggressive insolence, raided British territory, and responded to calls for redress by fresh outrages and overweening demands. War was the only possible course, but the war which Lord Amherst was forced to conduct was costly, protracted, and, at first, disastrous. Burma was an unknown country, and the

* See especially Elphinstone's illuminating Report on the Territories conquered from the Peishwa, in *Official writings of M. Elphinstone*.

climate of Lower Burma proved deadly to the invading troops. An expedition by sea resulted in the prompt capture of Rangoon, but disease and a lack of supplies prevented any advance being made up the Irrawadi (1824). Meanwhile the Burmese General Bandula, a commander of considerable ability, had invaded Bengal, but before achieving any success, he was recalled to deal with the situation in Pegu. Having arrived before the British position at Rangoon, he was worsted in two battles, and retreated up the river (Dec. 1824). During the early part of 1825, the British advance commenced, and the army penetrated as far as Prome, where a halt for the rainy season was made, whilst the Burmese were being expelled from Assam and Arakan. The conclusion of the war was conducted with greater promptness and success. During the last months of the year the enemy were repeatedly beaten: the advance continued and the last Burmese force having been crushed at no great distance from Ava, the king sued for peace and accepted the British terms. Arakan and Tenasserim were ceded, a British protectorate was recognised over Assam, Cachar and Rangpur, and a heavy indemnity was paid. The war had exhausted the India treasury: the slow progress made against a very inferior fighting power had disgraced British arms in the eyes of the natives of India, and a further duration of the campaign might have brought about a widespread disaffection. Certainly there had been considerable mismanagement, but ignorance of the country and a pestilential climate account chiefly for the failure to gain a prompt and decisive victory of the type India had learned to associate with the Company's armies. In the long run the war ceased to be an object of regret, for the ceded provinces underwent a development of resources quite beyond expectation. The value of Assam especially requires no comment to-day. The new territories also served to strengthen and secure the Eastern frontier of the British dominions, so that the north-western frontier was now the only doubtful one.

The only other events of importance belonging to the period of Lord Amherst's rule were an incipient mutiny of sepoys at Barrackpur, and the taking of the

almost impregnable fort of Bhurtpur. The mutiny need never have occurred at all if the reasonable complaints of the men had been met in a reasonable spirit; but once insubordination had begun, strong measures were essential. The sharp remedy employed, at least served to secure the subordination of the sepoy army for sixteen years.

Bhurtpur, it will be remembered, was the capital of the Jat state of that name, which Lord Lake had failed to capture in 1805. A question of succession called for British intervention, for Sir David Ochterlony, the Governor-General's Agent in Rajputana and Malwa, felt bound to vindicate the rightful heir,

recently recognised by the British government, and now wrongfully dispossessed by a usurper. The latter defied the British power, for, in the eyes of many a native prince, the Burmese war had attested its weakness and decay. Ochterlony prepared to intervene by force on his own responsibility, for which decision the fine old soldier was cruelly snubbed by the Governor-General. None the less was it plain that the British prestige must be rehabilitated by emphatic action. Twenty thousand men were marched to Bhurtpur, and the mighty fortress was stormed and captured in January 1826. Its fall was a convincing proof of British invincibility, and quickly arrested the growing disaffection.

The next Governor-General was Lord William Bentinck, who was entitled to some compensation for his unfair supersession as Governor of Madras at

the time of the Vellore Mutiny. His great administrative capacity and his intimate knowledge of India also marked him out as the most suitable man for the post. His rule was characterised by benevolence, progress and peaceful development. Between the Burmese annexations and the conquest of Sindh in 1843, there was no territorial expansion of any moment, nor did any serious military operations take place until the Afghan trouble of 1839. On the whole, Bentinck pursued a policy of non-intervention. He annexed the exceedingly small state of Coorg on the south of Mysore, by reason of the violence of its ruler; he took over the administration of

Mutiny at Barrackpur,
1824.

Taking of Bhurtpur,
1826.



EARL AMHERST, P.C.

Lord William Bentinck,
1828-35.

His non-intervention
policy.

Treaty of Yendabui,
February 1826.

Mysore itself for the same reason, a temporary interference, not an annexation; he appointed a permanent resident in Jaipur that the government of that Rajput State might not fall into greater disorder, and he added the small territory of

Minor annexations.

Cachar to the British dominions by the wish of its own people. But these were isolated, and for the most part unimportant, though necessary acts of interference; generally he revived the obsolete policy of leaving affairs alone in the native states under British ascendancy. Thus, even though misgovernment in Oudh and disorder in Gwalior called for emphatic action, the Governor-General was content to follow the instructions from London to the letter, by preserving an attitude of dignified aloofness. In so far as he amassed trouble for his successors in this manner, Bentinck was no doubt deserving of censure, but by his brilliant internal reforms Bentinck amply atoned for such minor mistakes.

First he effected considerable economies in the cost of government, and rehabilitated the finances. The permanent expenditure on the services was cut down, and new sources of revenue, such as opium, were created. Though individuals suffered by a decrease of pay and allowances, the act was justified in that a grave financial crisis—chiefly brought about by the

Burmese war—was averted. Second, important judicial reforms were effected. The pressure on European judicial officers had become so extreme, that Bentinck wisely solved the difficulty by giving a greater number of posts to natives, and by creating an appeal Court at Allahabad. He was the first British ruler who realised to any extent the validity of native claims to offices other than the most subordinate.

Third, he gave a considerable measure of freedom to the press, an act of liberation which Lord Amherst had himself inaugurated. Hitherto the government surveillance of newspapers had erred on the side of despotic severity. This liberation of the press was placed on a legal basis by Bentinck's immediate successor, Sir Charles Metcalfe.

Fourth, he gave a great impulse to education in accordance with the act of 1833, and by the aid of Macaulay, the first legal member of the Supreme Council. In deference to Macaulay's brilliant and famous Minute, it was decided that English was a superior educational instrument to oriental languages. Henceforth English became the vehicle of all higher education, and natives of India were introduced to the learning and science of the west through the medium of English teaching and literature. At the same time English became the official language of the Indian Government.

The completion of British ascendancy in India now for the first time made it possible to attack with all the weight of a powerful and settled government a series of social abuses, which were in their nature barbarous, and were the inheritance of a more barbarous age. Such

were Sati, Female infanticide and Thagi. Sati or widow burning, though not sanctioned by the Hindu code, had for centuries been one of the commonest and most sacred of religious rites. Technically a voluntary sacrifice, in effect it was frequently compulsory, and its abuse was such that nothing short of total prohibition could eradicate the evil. Educated native public opinion was progressive enough to urge its abolition, and when by the Act of 1829, Sati was prohibited within British territory, there was a quite unexpected lack of opposition, and the ceremony rapidly died out.

Female infanticide was practised most systematically in Rajputana, but there were few Hindu districts where it was unknown. The stigma attaching to the Hindu unmarried woman, the difficulty of finding husbands of the right caste or castes, and the expense of the wedding ceremony, all conspired to make the destruction of female babies a condonable offence in the public opinion of the country. The British Government now attempted to limit the evil of removing at least one of the causes. Wedding expenses were limited by law, and the discrepancy between the numbers of the sexes rapidly grew less.

Equally detestable was the organised system of robbery and murder denominated Thagi (Thuggee). The Thugs were scientific garotters, a hereditary caste of murderers whose proceedings were conducted with a secrecy and skill worthy of a better cause. The systematic suppression of Thagi was begun about 1829 by Major Sleeman, whose intimate knowledge of native life and local conditions pointed him out as the most competent man to deal with the organization. Sleeman was given very full powers, and within ten years Thagi had practically ceased to exist. About the same time strong measures were taken against Dacoity, an organized brigandage which was the counterpart to Thagi. Dacoity had been attacked by Hastings, but it still survived, and even the scientific operations of Sleeman were unable to eradicate it altogether. The dacoits formed a hereditary caste of such numerous ramifications that nothing less than a really efficient Imperial police could finally stamp it out throughout India. In general, it is true to say, that dacoity has been rare and sporadic since the middle of the 19th century.

The establishment of orderly government in Central India involved the pacification of the hill tribes, and the abolition of their most barbarous practices, such as human sacrifices. In this connection it is enough to mention the extraordinary achievements of Outram—the Mutiny hero—from 1825 onwards, in taming and organizing the wildest of all these tribes—the Bhils. Similar work was effectively done in later years with such tribes as the Khonds of Orissa and the Santals of Bengal.

In these several ways the condition of India was being ameliorated on every side. The abuses of the past were being eradicated, and the blessings of civilization were being conferred. Good and just government entailed material prosperity, the creation of

His liberal administration and reforms.

(a) Finance.

(b) The Judiciary.

(c) The Press.

(d) Education.

(e) Sati.

The taming of the aborigines.

trunk roads and a beginning in irrigation were positive pledges of improvement, and education had already begun that contact between the thought of East and West which is one of the most interesting experiments of the present age.

Several of the reforms just noticed were ordered by the India Act of 1833, others reflected that wave of liberalism in Europe of which the Act itself was an expression. These were the years of the great Reform Bill, of Catholic Emancipation and the Abolition of Slavery.

India Act of 1833. Consequently when the Charter came up for renewal in 1833, the Government at Westminster evinced a greater sympathy with the wants and aspirations of the Indian subjects of the Company than in previous years. The commercial monopoly of the Company had been broken into in 1813; in 1833 the Company was required to relinquish its trading functions altogether.* Thus the Government of India was permanently freed from the necessity of considering the selfish commercial ambitions of the shareholders, an obligation which had hitherto prevented India from being administered in a purely disinterested manner. In fact the Company was henceforth to devote itself exclusively to the task of administering its Indian dominions, and was to look solely to the welfare of those committed to its charge. At the same time certain desirable changes were made in the constitution of the Supreme Council; it was given legislative authority over the whole British dominions in India: a new Province (the North-West) was created to relieve the pressure on Bengal: natives were to be more freely admitted to office; and a Law Commission, of which Macaulay was the most prominent member, was to be appointed, of which the ultimate outcome was a series of Codes, Civil, Criminal and Penal.† The Act of 1833 is, therefore, an important landmark in the History of British India.

The Charter renewed for 20 years. Liberal character of the Act.

When Lord W. Bentinck resigned in 1835, a brilliant member of the Company's Civil Service, Sir Charles Metcalfe, became Governor-General. But the English ministry refused to break through the rule which had of late been firmly asserted of sending an English statesman to administer India. Lord Auckland was chosen for the post, and Metcalfe gave place to him after a year of office. Lord Auckland was an inexperienced statesman whose period of rule is associated with the greatest disaster in the history of British India. Trusting to inexperienced advisers, he rashly plunged into the turmoil of Afghan politics, thus courting difficulties with which his lack of nerve and want of self-reliance rendered him quite unfit to deal. For thirty years the Afghan kingdom founded by Ahmed Shah Abdali had been plunged in civil and foreign wars, Shah Shuja, the descendant of Ahmed, having been twice driven from his throne. Dost Mohammed, descendant

of a minister of Ahmed, was virtually the ruler of Afghanistan when the events which we are about to relate took place. Since the beginning of the century Ranjit Singh, having consolidated a powerful Sikh monarchy, with a formidable army, had seized every opportunity to extend his territories at the expense of the Afghans. Taking advantage of the disordered state of that kingdom, he had successively lopped off Multan, Kashmir, and Peshawar from the Afghan dominions. Throughout this period, Ranjit had remained on amicable terms with the British; he had a wholesome appreciation of their power, and decided at all costs to avoid a conflict in his own lifetime. With the earliest threat of Russian aggression in Central Asia, the desirability of maintaining 'buffer states' beyond the frontiers of India had caused Lord Minto to despatch missions as far afield as Teheran and Kabul. The defensive treaty then made with Persia had, however, been abandoned twenty years later (1828), and Russia had made rapid strides across the Asiatic Continent. Anglo-Indian statesmen had practically fallen back upon Afghanistan as the defensible barrier, and the wisest policy seemed to be the maintenance of friendly relations with Afghanistan, without arousing the enmity of that most useful internal barrier, the Sikh theocracy. A friendly alliance with both powers would thus double-lock the gates of India against any invading power, the immediate danger from Russia was no doubt then, as since, exaggerated, but a Persian attack on Herat 1837, encouraged by Russia, lent a handle to the argument for interposition in Afghanistan. But though Lord Auckland was urged from London to take decisive measures in Afghanistan, he was not justified in his method of intervention. His object of establishing a friendly power in the Afghan provinces could have been attained by securing the *de facto* Afghan government. Attempts were, indeed, made to obtain Dost Mohammed's friendship, which involved an understanding between him and Ranjit Singh. There is every reason to suppose that more serious diplomatic attempts would have brought about an adjustment, for Ranjit Singh would have yielded Peshawar—which Dost Mohammed wanted—for an equivalent, and the Afghan Amir himself was known to prefer British to Russian friendship. But the Governor-General and his advisers were unwarrantably suspicious of Dost Mohammed. Without having made sufficient efforts to conciliate him, and in the complete absence of hostile action on his part, they decided that Shah Shuja should be restored by British bayonets, and the friendship of Afghanistan unequivocally secured by the gratitude of the reinstated king. But by September 1838 the successful defence of Herat and the retreat of the Persians had removed any danger of Russo-Persian aggression. The Shah of Persia

Sikhs and Afghans.

Anarchical condition of Afghanistan.

Necessity of securing friendship of Afghanistan in view of Russian advance.

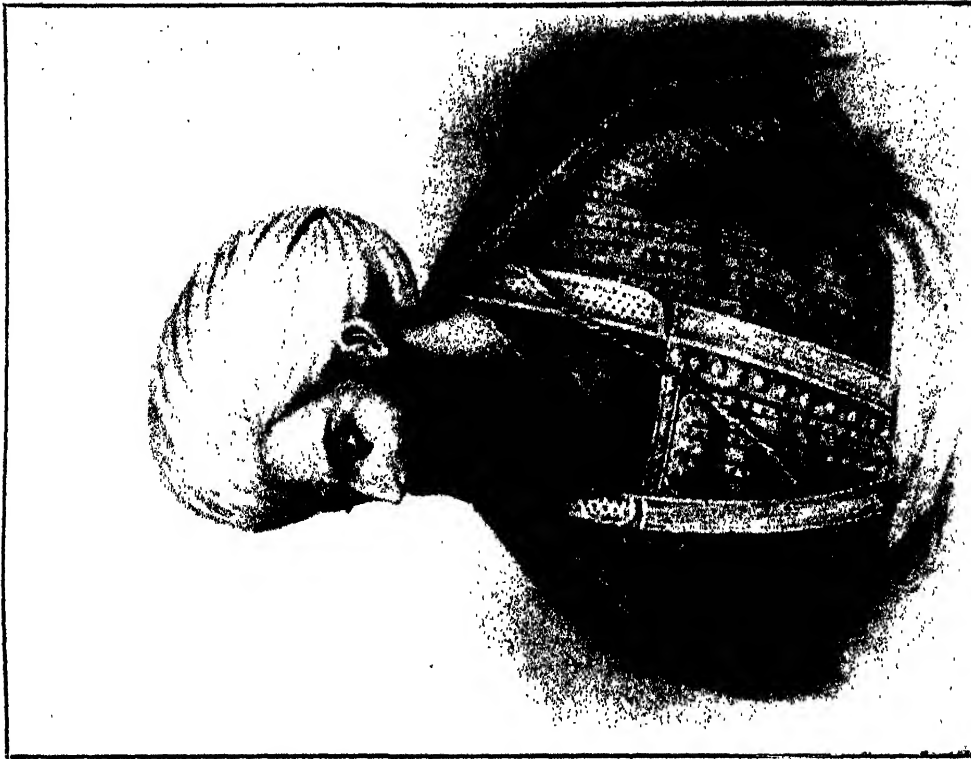
The wrong method employed by Auckland.

The removal of Russo-Persian aggression (1838) renders intervention less urgent.

First Afghan War, 1838-42.

* But the shareholders were guaranteed of Parliament against loss.

† They did not, however, become law until the time of Canning.



DOST MOHAMMED KHAN, AMIR OF AFGHANISTAN.



RANJIT SINGH, THE 'LION OF THE PUNJAB.'

was afraid of further provoking Britain, and the Czar was not prepared to act the aggressor in his own person. Notwithstanding, Lord Auckland persisted in his hair-brained scheme of imposing on the wild and warlike Afghans a king whom they did not wish. The expedition started at the close of 1838. The main army marched through Sindh—where subsidies were unfairly levied from the Amirs—finally reaching Kandahar, after great privations, at the end of April 1839.

The country occupied and Shah Shuja restored 1839.
National insurrection, Nov. 1841.
There Shah Shuja was formally installed as king. Ghazni, an impregnable fort, was next taken by a feint, and in August Kabul was reached. Dost Mohammed fled, and the English with their puppet were soon in complete occupation of the country. But everything

Surrender of the Kabul Force.
broke out in 1840 and again in the spring of 1841. Though Dost Mohammed had ultimately surrendered and was now a prisoner in Calcutta, so great and so widespread was the hatred felt towards the 'infidel dogs' that a general outburst was sure to arise on the first favourable opportunity. In 1841, the great cost of maintaining an army of 25,000 in Afghanistan led to the withdrawal of certain subsidies hitherto paid to the local chiefs to keep them quiet. The country was soon in a ferment, until partial revolts and local risings culminated in universal insurrection. The storm burst at Kabul, and had General Elphinstone been less incompetent his 5,000 troops could easily have quelled the disturbance. But being unchecked, it grew to vast proportions. A son of Dost Mohammed appeared, the British Envoy, Sir William Macnaghten, was murdered, and the military authorities, having perpetrated every possible blunder, insisted on an unconditional surrender of the whole force. It was accordingly allowed to evacuate the country, leaving hostages behind. The commanders at Ghazni, Jellalabad and Kandahar warmly repudiated the craven instructions from Kabul, while the Kabul force, accompanied by some 10,000 camp followers started to retreat on January 6th, 1842. But the Afghans treacherously disregarded their promises of safe conduct; a murderous fire was inflicted on the fugitives in every defile and gorge, and those who were not killed by shot or steel, perished of cold and want. A single survivor reached Jellalabad on January 14th, to recount the greatest disaster ever experienced by a British force in Asia. The fatal news almost paralysed the Governor-General, but he was induced to despatch a relief force under the capable General Pollock. Meanwhile the British credit was being nobly upheld at Jellalabad by General Sale, and by General Nott at Kandahar. Ghazni fell, but the garrisons at Kandahar and Jellalabad beat off every attack of a superior force, and even assumed the offensive. Kandahar was safe by March, and the siege of

Jellalabad had been raised by April, a week before Pollock arrived. He had been hampered by the Sikhs, now semi-hostile since Ranjit Singh had died in 1839, and had only dislodged the Afghans from the Khyber Pass by well-planned flanking movements.

Meanwhile Lord Ellenborough had arrived to supersede the unfortunate Auckland. The folly of the Afghan Expedition was realised alike in London and Calcutta, but though no other alternative was offered than a withdrawal from the country, some attempt to vindicate British prestige was eminently desirable. When, therefore, the timid Council of the Governor-General urged immediate evacuation, the undefeated Generals

wisely adopted bolder courses, and insisted on the reconquest of Kabul and the release of the British prisoners—many of them women—as a necessary preliminary to withdrawal. Nott from Kandahar and Pollock from Jellalabad, therefore, advanced on the Capital. The first retook Ghazni *en route*, the second routed an hostile army in the field. Kabul was re-occupied in September, the prisoners and hostage were recovered. These events followed by an undisturbed triumphal march from Kabul to Agra, contributed a little to atone for the pregnant humiliations of the war. Still the disaster of 1842 was not slowly forgotten, and the Sikh War of the next few years must have largely sprung from the knowledge then gained that British arms were not invincible. Politically, however, a useful lesson had been learnt. No attempt was made to interfere in Afghanistan for forty years, and Dost Mohammed returned to rule at Kabul, his rival having been murdered by the patriotic party in 1842.

Results of these events.
The Afghan affair was almost immediately followed by a war in Sindh. For a long period the lower part of the Indus Valley had been ruled by a group of Beluchi chiefs known as the Amirs of Sindh. They first came into connection with the British Government in India during the rule of Lord Minto who made a treaty with them in 1809, with the object of strengthening the

Affairs in Sindh, 1842.
barriers of India against a French land attack. Subsequently to 1832, commercial agreements had been made with them relative to opening up the Indus for commerce. In 1839, it was necessary to employ Sindh as a base for the Afghanistan expedition. The Amirs were treated rather harshly: a tribute was imposed and the military station of Thatta occupied. The Amirs submitted under protest, but throughout the Afghanistan operations they lent assistance in the way of provisions and transport, which it would have been possible for them to withhold without any infraction of treaties. In the case of a few Amirs, however, the reverses of 1842 excited manifestations of hostility, but no overt act could be

proved against them. Lord Ellenborough, rendered nervous by recent events in Afghanistan, was too quick to notice and resent any hostile feelings on the part of allied states. He superseded

Sir Charles Napier provokes a war, 1843.

Successful defence of Kandahar and Jellalabad, 1842.

Pollock's relief force.
British credit was being nobly upheld at Jellalabad by General Sale, and by General Nott at Kandahar. Ghazni fell, but the garrisons at Kandahar and Jellalabad beat off every attack of a superior force, and even assumed the offensive. Kandahar was safe by March, and the siege of

Outram, whose influence in Sindh was of a conciliatory character, by Sir Charles Napier, whose hectoring manner and aggressive intentions soon brought about a rupture. Napier, being invested with full military and diplomatic powers, menaced the Amirs in the harshest manner, failed to sift the charges of disloyalty, and credulously allowed himself to be embittered against the Amirs by the villain Ali Murad, a brother to the chief Amir, and eager to obtain his brother's 'turban' by his downfall at the hands of the British. The consequence was that misunderstandings arose, much land was confiscated before the Amirs had been heard in their defence, or a new treaty had been signed, and the really loyal intentions of the chief Amir and his associates were sadly misrepresented to Sir Charles.

surrendered unconditionally, and the harsh treatment which provoked the war was carried to a climax by the total annexation of the country. It must be admitted that the Amirs were aliens themselves, and

Annexation of Sindh,
1843.

that Sindh soon settled down cheerfully under British rule to its own advantage: still the affair was a piece of political rascality, which fortunately has no parallel in the history of British India.

Trouble had meanwhile being brewing in Gwalior, and it seemed as if the British Government were destined never to be free from war in some portion of its dominions. Sindhia had been left practically independent in 1818, but the progress of affairs in the State of Gwalior hardly justified the policy of non-



THE BATTLE OF MEANEE, Feb. 17th, 1843.

The humiliation of their princes provoked the troops and populace at Haiderabad to an explosion, and in February 1843, the Residency at the Capital was attacked. This outbreak of course involved war, but it must be remembered that the behaviour of the British Envoy had provoked the attack. Napier made no secret of his desire to coerce the Amirs, to force them into opposition and thereby to have an excuse for annexing the country. The war itself, while it resulted from wholly unjustifiable tactics, was brilliantly successful. The Beluchis fought hard, but were overpowered in the bloody battle of Meanee, and subsequently in an equally desperate encounter near Haiderabad. The Amirs

Battle of Meanee
and Haiderabad.

intervention which subsequent Governors-General pursued. In 1843, the successor of Doulat Rao died, whereupon his widow, a girl of thirteen, adopted as heir a child of eight. Lord Ellenborough rightly insisted on the selection of a single and competent Regent. The Rana Saheb, an uncle of the late Sindhia, was appointed, but the hereditary Chamberlain known as 'the Dada' aspired to the post, and was supported by the Rani. Both intrigued against the Rana, and the British Government was compelled to support the threatened Regent. The difficulty would have been easily settled, but for the presence of a disproportionately strong and determined army in the State. An army only less powerful than that in the

Trouble in Gwalior,
1843.

Punjab had to be reckoned with, and it most naturally became the leading factor in the situation. The presence of 40,000 trained Hindus with 200 cannon was a real danger in view of its close proximity to the Punjab and a possible union with the fanatical Sikhs, whose attitude was becoming more threatening every year.

The Gwalior army a source of danger.

When, therefore, the Gwalior army sided with the Rani's faction, and the Regent was driven from the country, Lord Elenborough felt it necessary to intervene promptly and at all hazards to secure the establishment of a friendly government at Gwalior. British forces approached the frontier and a demand for the surrender of the arch-intriguer Dada was supplemented by a demand for the reduction of the army. Under these circumstances the Gwalior army could not be held back, the Rani was prevented from coming to an agreement and the forces marched out to drive the English across the Chambal. On December 29th, both columns encountered British forces, and were routed at the battles of Maharajpur and Puniar. At

Internal factions lead to British intervention.

Maharajpur the main armies met and the Mahrattas were only beaten after a stubborn hand-to-hand fight. The victory, however, was complete and resistance was paralysed. Sindhia retained his dominions, but lost his independence. He assumed the rank of a regular subsidiary ally with a diminished army, a large subsidised British Contingent, and a

The Gwalior campaign, Dec. 1843.

Resident who was empowered to dictate advice during the minority of the prince. Gwalior had now definitely accepted the position of feudatory prince, like Holkar and the Bhonsla, a position which he holds to-day. Six months later Lord Ellenborough, who was regarded as too brilliant and unsafe, was recalled and a well tried soldier, Sir Henry Hardinge, took his place.

Hardinge came to India with the intention of pursuing peace and attending to the social welfare of the people. But it was proved, that the completion of the British dominion had to precede internal reforms, and the new ruler's attention was almost entirely monopolised by preparations for a contest with the Sikhs—the first Sikh war—and the settlement of the Punjab after victory had been won. The Sikhs, who are a Hindu sect, consisting partly of Rajputs but chiefly of Jats, derive their origin as a special organization from a liberal

Sir Henry Hardinge, 1844–48.

teacher, Nanak, who was contemporary with Baber and Humayun. The religious enthusiasm of his followers was stimulated to assume a military form by the oppressions of Aurangzeb and other Mussalmans in the 17th century. This transformation was virtually the work of Govind Singh, a Sikh Guru or prophet, who lived a century and a half after Nanak. The 'Khalsa,' or Sikh brotherhood in its military form, underwent many sufferings and humiliations after Govind's death. It was repeatedly crushed by the Moguls, and was brought under the Afghan dominion of Ahmed Abdali in the middle of the 18th century.

Foundation of a kingdom in the Punjab by Ranjit Singh, 1799–1839.

Throughout this period the organization of the Khalsa was deficient, for though united on occasion against external foes, the Sirdars and their retainers who composed the brotherhood were not prevented by any state organization from internal rivalries and conflicts. It was not until the advent of Ranjit Singh that this loose confederacy was welded into a powerful state. Ranjit not only achieved internal union, but extended the borders of his kingdom in the west and north, while carefully avoiding a conflict with the great power on his eastern frontier. Like many founders of dynasties Ranjit Singh was more familiar with the sword than the pen. Less talented in administration than Sivaji, he possessed the astuteness of Haider Ali, and the military genius of both. He organised a powerful army on the European model, drilled by European officers, and supported by an artillery which would have done credit to the Mogul. The army, at the beginning of the war in 1845 numbered, with irregular levies, well over 100,000 men, but it had remained at a lower figure during the life-time of the Maharaja.* The death of the great Maharaja (1839) had ushered in a period of anarchy, prolific in intrigues and assassinations, which was only too likely to culminate in external war. In the Punjab as in Gwalior, the army was the chief factor in the situation. After the violent death of two Maharajas, the Rani of Ranjit Singh, acting as guardian of the infant Dhuleep, was ranged against a powerful Rajput, Hira Singh, who sought to pull the strings of government. Both sides appealed to the army, and when the Rani triumphed over her rival the attitude of the army was still so doubtful that the only means of security seemed to be the employment of that army abroad. It was accordingly launched upon the British, the danger of ultimate annexation being entirely obscured by the emergency of the moment. Hardinge and his Commander-in-Chief Sir Hugh (afterwards Viscount) Gough, were, however, ready to repel the unprovoked invasion. The British troops were well placed for concerted action, and two columns rapidly advanced to meet the Sikhs at Mudki. There the first engagement of the war was fought, a fierce and stubborn battle resulting in the dislodgement of the Sikhs. Next, an advance was made to Ferozeshah, where the Sikhs in great numbers occupied a strongly entrenched position. The battle which followed consists of three distinct parts; it was the most sanguinary ever fought by the British in India, and though completely successful cost them 2,500 casualties. Hardinge, who had tactfully placed himself under the command of Sir Hugh Gough, on this occasion felt it necessary to assert his authority as Governor-General. Gough wished to attack the enemy on the morning of December 21st,

The Sikh army.

Anarchy in the Punjab, 1839–45.

The First Sikh War, 1845–6.

The Sikhs cross the Sutlej, Dec. 1845.

Battle of Mudki.

Ferozeshah, Dec. 1845.

Aliwal, Jan. 1866.

* In 1845 the Sikhs possessed, 380 field guns, 104 garrison guns and 308 Camel Swivels—Sir L. Griffin's Ranjit Singh. Rulers of India Series.

Hardinge, having tasted Sikh powers, and realising the danger of defeat, insisted on awaiting certain reinforcements from Ferozepur. The battle consequently only commenced late in the afternoon, and darkness soon prevented the efficient co-operation of the assailants. As it turned out, the reinforcing brigade lent little assistance, and Gough's plan might have been the wiser after all. The fight raged through a large part of the night; the entrenchments were partially secured, and as, owing to dissensions in the Sikh Camp, most of their forces were withdrawn before dawn, the position was easily carried by the wearied and depleted British army in the morning. A few hours later Tej Singh with nearly 30,000 fresh men appeared to sup-

February 10th, the decisive battle of the war was fought. The Sikhs had entrenched themselves with surprising skill at Sobraon, with their backs to the left bank of the Sutlej. Gough resolved to storm the position, and after an indecisive artillery duel sent forward his men, to carry the almost impregnable position. Over 2,000 succumbed to the withering fire of the resolute enemy, but after many a check the entrenchments were pierced in three directions, and the gallant defenders were driven across the river. Many perished in the attempt and the total loss of the Sikhs was estimated at 8,000 together with their artillery and vast munitions of war. The victory was decisive:

Treaty of Lahore,
March 1846.



THE 31ST REGIMENT WITH MAJOR-GENERAL SIR HARRY SMITH'S DIVISION ENGAGED AT THE BATTLE OF SOBRAON, February 10th, 1846.

port his colleagues. But finding Ferozeshah taken, and ignorant how incapable its capturers were of further effort, he withdrew after a brief cannonade, and the British Empire in India was saved by a miracle. The battle of Ferozeshah was all but lost because of deficient tactics—a flank movement would have been less costly than a frontal attack—and by reason of the inferiority of the British artillery and their deficiency in ammunition. Though Ferozeshah by no means destroyed the Sikh army, it stemmed the Sikh invasion; the enemy now needed all their strength to defend the line of the Sutlej and to hinder the

Sobraon, Feb. 1846.

British advance. A useful success over a Sikh raiding force was scored at Aliwal in January by Sir Harry Smith, and on

the power of the Khalsa had been shattered in sixty days. Further resistance was felt to be vain; the country was speedily occupied, and terms of peace arranged. The Governor-General deliberately dismissed the alternative annexation and attempted to establish a capable native government under British supervision. By the terms of the treaty the Jalandar Doab—between the Sutlej and the Beas—was the only territory annexed. But in default of the full indemnity Kashmir was accepted and sold to Gholab Singh of Jammu. The Sikh army was reduced to 30,000; a Council of Regency was appointed with Henry Lawrence as Resident, and British troops were to remain for a specified period to maintain order in

Henry Lawrence reduces
the country to order.

the country and support the Regency. Lawrence quickly gained the confidence of the land-owners—the Sirdars—by his tact, while the courage and genius of Edwardes, Nicholson, Abbott and others compelled the devotion of the hill-men. But the Sikh army felt that it had been betrayed by its leaders, and would not accept its defeat as final. It was, moreover, worked upon by the Court party, and it was clear that the slightest provocation would result in an explosion. The withdrawal of Henry Lawrence's sympathetic control at the beginning of 1848, owing to ill-health, was therefore much to be deplored. Sir Henry—now Lord—Hardinge retired at the same time, and his successor, Lord Dalhousie, was soon faced by a widespread rebellion in the Punjab.

The new Governor-General was the last of the East India Company's great Proconsuls and the youngest man who had ever assumed the Government of India. Born as recently as 1812, ignorant of India and Indian conditions, his natural genius and his native confidence soon gave him the mastery of the whole administration, and conspired to render his period of rule and epoch no less momentous than the stirring times of Clive, Warren Hastings or of Wellesley. Dalhousie had served under Sir Robert Peel, as President of the Board of Trade, a position which gave the future Indian statesman an intimate acquaintance with railway policy. He came to India determined to devote himself to the welfare of the country by consolidation, the development of internal communications, trade and education. In spite of wars in the Punjab and in Burma, he kept these peaceful ambitions ever before him, and during eight years of

Lord Dalhousie,
1848—56.

strenuous work he accomplished more for India than all the Governors-General since Wellesley had done between them. He acquired a detailed personal knowledge of all departments, and controlled all departments with the resolution of an autocrat and the wisdom of a master-mind. He inspired all with awe, those who knew him with admiration and love. No man more completely gained the allegiance of his subordinates, because no man by right of personal knowledge and personal work deserved it better. In the cause of India he worked

His character and
achievement.

himself into the grave, but no suffering and no bereavement could overcome that resolute spirit or silence the claims of duty. So heroic a devotion was rewarded by the affection and esteem of all classes, and above all by the consciousness of noble work accomplished. It may be said of Dalhousie with more truth than of any other in the line of great pro-Consuls "that Modern India is his monument."

"Lord Dalhousie did three things in India. He extended its frontiers, so as to bring them into inevitable though indirect contact with a great European nation on the one side, and with an ancient Asiatic power on the other. He at the same time consolidated the East India Company's internal possessions, and the intervening Feudatory States, into the true beginnings of a united Indian Empire. But perhaps his most permanent claim on the gratitude of his country is that by his far-reaching schemes of railways, roads, canals, and public works, he inaugurated the great revolution which had converted the agricultural India of antiquity into the manufacturing and mercantile India of our own day. Expansion of territory, unification of territory, and the drawing forth of material resources—these were the three labours given to Lord Dalhousie to accomplish in India: and in the three words, conquest, consolidation, and development, his work may be summed up."*

Three-fold nature of
his task.

First, as to the expansion of territory. The young Governor-General was faced on his arrival by the muttering of a storm in the Punjab. The storm burst at Multan in April 1848, with the murder of



Lieut.-Genl. SIR HARRY G. W. SMITH, Bart., G.C.B.

two Englishmen sent to relieve the corrupt governor of his authority. Herbert Edwardes, from the Derajat

(r) Conquest.

marched to the rescue with 400 devoted Pathans, but though too late to save his compatriots' lives, he drove back the vastly superior Sikh force and penned it up in the mighty fortress of Multan. During three months of summer heat Edwardes held the field, while revolt was steadily spreading around him. At last there arrived a relieving column with heavy guns, but it was not

* Hunter's Dalhousie in the Rulers of India Series. But the most complete and most recent biography is that by Sir W. Lee-Warner in 2 volumes.

until the approach of a Bombay Contingent in December that the siege could be finally undertaken. Multan surrendered in January 1849, but, meanwhile, a practical revolt had become transformed into a national insurrection and the 2nd Sikh war had begun. The Multan outbreak had been regarded as an affair to be dealt with by the Sikh government under the Resident's control. That it would lead to a widespread rebellion was doubted, and the chance of its doing so was preferred to the hazard of an immediate invasion with a small force to quench the conflagration. Military considerations as well as policy were responsible for this decision: operations, if ultimately necessary, would be easier in the cold

The Second Sikh
War, 1848-9.

Singh, their leader, to withdraw with his whole force to Rassul on the Jhelum. Gough now transported his forces across the Chenab, and moving towards the Jhelum, found the enemy entrenched at Chillianwallah in a position of no ordinary strength. The battle which followed closely resembles the sanguinary struggle at Ferozeshah. Circumstances precipitated an evening engagement, circumstances also, the General thought, required that he should deliver a frontal attack.

Ramnagar (Nov.) and
Sadulapur (Dec.) '48.

The brigades lost much in the advance; the Sikh artillery was more than usually destructive; for a long time the issue was doubtful. But the dogged courage of the British infantry, magnificently led, and inspired by the ardour of their beloved General, gained



CHARGE OF H. M. 14TH LIGHT DRAGOONS OF THE BATTLE OF RAMNAGAR, NOV. 22ND, 1848.

[From a painting by Hy. Martens, engraved by I. Harns and published by R. Ackermann, London.]

weather, and time would be gained for assembling a powerful conquering army. It was not until September that the Sikhs as a whole set up the standard of revolt, and committed themselves once again to a stand-up fight against the British. Lord Gough had completed his preparations by November and advanced to the Chenab, which was the line the Sikhs had resolved to dispute, just as the Sutlej had been their defensive line in the first war. The campaign opened with an indecisive action at Ramnagar, and another at Sadulapur, where the turning of the Sikh position caused Sher

Revolt at Multan and
eventual capture of the
fortress.

Rising of the Khalsa.
Sept. 1848.

the day, though darkness prevented the victory from being completed. The Sikhs fell back on their position at Rassul, and little had been gained by the British at a cost of more than 2,000 casualties. Gough was severely censured for his conduct of a battle, which though nominally a victory, was strategically a defeat; but he had only advanced to Chillianwallah under political pressure, and must not be held to account for a battle not of his own seeking and fought against tremendous odds. The power of the Sikh artillery was notorious, and their skill in erecting strong entrenchments flanked by natural defences was such that a very different resistance was to be expected from that usual in Indian warfare. Gough was somewhat

unfairly superseded by orators from London, but before the humiliating news arrived, he had after a month of cautious watching been reinforced from Multan and gained the crowning victory of Guzerat. Here at least he fought on his own terms with a considerable army and sufficient guns. The slaughter at Guzerat was far less severe, as a preliminary artillery cannonade greatly weakened the enemy's line, and sole reliance was not placed upon desperate infantry attacks. This battle brought the war to a close and the routed Sikhs being promptly pursued surrendered on March 12. An Afghan contingent which had lent their ancient foes assistance against their more recent enemies—the British, escaped over the border unpunished. The tranquillity of India demanded annexation, and the entire Punjab was now added to the British dominions. The futility of half measures had been proved in 1848, and Dalhousie felt that annexation was both expedient, necessary and just. Henry Lawrence differed from the Governor-General as to the expediency of annexation, as also on various questions of subsequent policy in the new province, but his talents were too great to be ignored, and he with his brother John, and a third Member to hold the balance, were appointed as a Governing Board. The pacification of the Punjab was rapidly concluded, and an eminently sound administration provided. Dalhousie himself dictated the main lines of administration, and insisted on his recommendations being rigidly carried out. The Sikh army was disbanded, but the best soldiers were enrolled in new British regiments, while others went to swell the new military police. The Sirdar's power for mischief was completely broken, while the people as a whole were conciliated by a sound system of civil and criminal justice in place of caprice and mutilation, and by the reduction of the imposts from forty-eight to half-a-dozen. The country was parcelled out into districts administered by capable officials, half-civil, half-military; roads were built, irrigation works inaugurated, and public instruction undertaken. At the same time the confidence of the hill tribes was gained by Nicholson and his compeers; a strong frontier force was created, backed by a line of posts along the border. By such means as these the Punjab was rapidly converted into an integral province of the British Empire, safe, loyal and prosperous. Each single step in this great achievement was either projected or scrutinized by Dalhousie, every stone of the fabric bore the impress of his genius. Had he been less capable and prescient, or had his subordinates been of inferior calibre to the Lawrences, the Punjab would never have become what it so gloriously revealed itself to be in the crisis of 1857,—the saviour province of India.*

Th acquisition of a north-west frontier coterminous with India's mountain barrier brought the Empire

into direct contact with Afghanistan. The follies of Lord Auckland has arrested the natural course of our relations into that country, but in 1855 a treaty was made with the Amir by which Afghanistan once more resumed her place as a friendly state and acted again as a neutral zone between India and the ever advancing Asiatic power of Russia.

At no long interval after the conquest of the Punjab the British Empire was brought into contact with Thibet and the Chinese Empire by the annexation of the outlying Sikkim districts in 1850 and of Lower Burma in 1852. The Sikkim annexation was inconsiderable in extent, though important as a rectification of frontier: it was the result of a punitive expedition demanded by the treacherous seizure of British subjects. The Burmese annexation was the consequence of the second Burmese war, demanded by a long series of provocation on the part of the King of Ava and his Governor in Pegu. The treaty of Yendabu, which allowed British merchants to take up their residence at Rangoon, had been habitually violated, the British Resident had been driven out of Ava by studied insults, and no redress could be obtained. A memorial from the ill-treated European community at Rangoon brought matters to a crisis, for the moderate compensation demanded by Dalhousie was refused, and no alternative remained but war. The second war was in effective contrast to the first by reason of the adequate preparations and the rapid military movements. The army was carefully equipped against the climate and the expedition was organised on a scale sufficient to ensure decisive success. Transported by sea, the British troops captured Rangoon in April, the storming of the fortified temple being one of the most splendid achievements of modern warfare.

A halt during the rains was followed by an advance up the valley of the Irrawaddi. Prome and Pegu were captured in October and November, and here the military operations ceased. The further advance to Ava would have probably involved the annexation of Upper Burma to which Lord Dalhousie was averse. He was content with the conquered province, which in view of the incapacity of the Burma Court to conduct negotiations satisfactorily, was annexed by Proclamation. Lower Burma, greatly to the advantage of the oppressed population, was thus added to the formerly ceded districts of Arakan and Tenasserim, and the British frontier was pushed eastwards after a war which had been deliberately provoked and rapidly concluded.

The second great task which Lord Dalhousie set himself was the consolidation of the Company's dominions by the annexation of those intervening Native States which had little or no claim to consideration. Unification in the Peninsula was no less important than extension of frontier. In 1848, there existed a great number of inefficient princes and sham royalties. Wellesley had been the great promoter of subsidiary

* It is to be noted that the Board was broken up in 1852. John Lawrence was then appointed to govern the province as Chief Commissioner.

alliances and dependent native dynasties by which petty despots were guaranteed against the natural result of their misgovernment without being subject to the purifying control of the Paramount Power. The King of Oudh, for instance, in the absence of provision for British control over his internal administration, continued to misgovern and oppress his subjects, who in their turn were prevented from resorting to the natural mode of redress in the East, revolution and deposition, because the throne of their king was guaranteed by treaty with the British Government. Thus did the supreme power fail to realise its responsibility for the welfare of millions, while its armed support served to emancipate the rulers from the necessity

Dalhousie and Native States.

of conciliating their subjects by tolerable administration and freedom from gross oppression.

Since the degeneration of royal families in India was such a regular feature as to make continuous good government impossible, Dalhousie considered not only that actual oppression constituted a claim to annexation, but that every *legitimate* opportunity for bringing a dependent state under the formal dominion of the Company should be seized. The commonest case of a legitimate opportunity was the death of a ruler without heirs other than adopted.

The question of Adoption and the doctrine of Lapse.

"The legal right of the sovereign power to withhold its consent to adoptions for the purpose of

transmitting a subordinate principality was acknowledged." This right had been held and sometimes asserted by the Moguls, though more often the adopted heir was recognised on the payment of a large death-duty. The British as the successors of the Moguls also possessed the right of refusal, though they had exercised it but seldom. When, therefore, a subordinate and feudatory prince had no heirs of his body, the transmission of his principality to an adopted heir required the consent of the suzerain power. He had the full right of adoption by Hindu law, and there could be no interference with the succession of the adopted heir to the private property of his adopter. It was only the question of rulership which was involved. The Company had hitherto deliberately avoided opportunities of increasing their dominions by the refusal of sanction in such cases: they had not sought to multiply escheats. But in view of the frequent misgovernment in Native States, and the growing sentiment of responsibility towards the unfortunate subjects of oppressive princes, it had been declared by the Court of Directors in 1834 that such an indulgence (as the recognition of an adopted heir's right to succeed to a principality) should be the exception, not the rule, and should be granted as a special mark of favour and approbation." The same principle had been re-asserted more emphatically in 1841, and Lord Dalhousie made it his business to carry out these instructions to the letter. An unusually large number of opportunities for annexation on these terms occurred during his period of office. Besides the annexation of Oudh for misgovernment, there were three leading and several minor cases of annexation by 'lapse' or escheat. The legitimacy of his action in

Dalhousie's construction of the doctrine legitimate.

terms occurred during his period of office. Besides the annexation of Oudh for misgovernment, there were three leading and several minor cases of annexation by 'lapse' or escheat. The legitimacy of his action in

each case cannot, in view of the facts adduced above, be called in question, it is only their expediency which admits of possible contradiction. But Dalhousie was firmly convinced of the expediency of substituting a just for an unjust or at least an uncertain government, and it must be remembered that an efficient system of internal control and the training of young chiefs by British officers, whereby alone such annexations became unnecessary, were the products of a later day.

The leading cases of annexation by lapse were Satara, Nagpur and Jhansi. Satara was annexed in 1848 in the absence of a legitimate heir, the adopted

The case of Satara, 1848.

son of the late Raja being an unknown boy selected almost by chance. There being no obligation to place him upon the throne of Sivaji, the

claims of the people to efficient government were allowed to predominate, and Dalhousie acted as most authorities in India and in England recommended. The justice of his action was the less open to dispute because the principality of Satara as a territorial state had been created by the British and only thirty years before. What the Paramount Power had given, it assuredly could take away in the absence of treaties to the contrary. Jhansi was entitled to still less indulgence as the misrule perpetrated by its Rajas had been of more disastrous consequence

Jhansi, 1853.

than in Satara. The state of Jhansi was a fragment of Bundelkhand ceded by the Peishwa in 1817, but the subordinate ruler had only been dignified with the title of Raja by the British themselves. The new annexation policy was carried into effect in 1853 when the throne was vacant. Nagpur, which Hastings had deliberately left in native hands after the third Mahratta war, had also suffered from misgovernment. "The last Bhonsla's sole idea regarding the treaty by which he had been

Nagpur, 1853.

raised to the chiefship, was that it secured for him the British protection against the vengeance of his subjects." This contemptible prince died in 1853 having refused to adopt an heir. There being no legitimate successor, Dalhousie resolved to consider the interests of the people rather than sacrifice them in order to avoid imputed greed and misrepresentation. Nagpur certainly profited by the transaction, but it cannot be denied that the disappearance of a great Mahratta state had for a time an unsettling effect upon the native mind. Nagpur was by far the largest of the states which were escheated in Dalhousie's time, and it forms the greater part of the modern Central Provinces.

Other minor annexations by lapse there were, and at least one state was admitted within the British dominions by its own wish. The case of Kerauli, a Rajput state near the Chambal, most clearly illustrates the current policy of the Company with regard to native states. On the proposed lapse of Kerauli by failure of lineal heirs, the

The doctrine not applied to lineal sovereign states.

Directors decided in favour of the adopted heir, on the ground that Kerauli was a protected ally, and not a dependent principality! It was a quasi-

sovereign state of great antiquity similar to the principalities of Rajputana, not a subordinate state created by the British Government, or, after defeat, tolerated by that government during good behaviour. The danger to be apprehended by the native chief was, therefore, far less widespread than the enemies of Dalhousie pretended it to be. The last annexation of this period was that of Oudh,

Annexation of Oudh,
1856.

and was in no way concerned with the adoption question. The Nawab Vizier, who had lately been created King of Oudh, owed his position entirely to the British, and his power was no more ancient than theirs. He had been persistently bolstered up by the Company, and had been consistently loyal. The treaty of 1801 had greatly reduced his importance, while it gave him a fresh lease of life. But it did not guarantee good government, and the misrule became annually more pernicious. The repeated warnings of successive Governors-General had been scouted, and the Directors finally decided on annexation as the only practicable policy. Lord Dalhousie carried their orders into effect in 1856, and pensioned off the dethroned king. In the same year the last Peishwa died, and his pension being an annuity was not continued to his adopted son though he was allowed to inherit the vast private fortune of his father—that son, the notorious Nana Sahib—regarded himself as defrauded of his right, and amply revenged himself for the supposed slight in the Mutiny of

Lapse of pensions :
(i) Peishwa.
(ii) Nawabs of Karnatic.
1857. The list of sham royalties whom Lord Dalhousie disposed of may be completed by the mention of the purely titular Nawabs of the Karnatic, whose continuance was wisely decided against on the death of the then holder of that now anomalous dignity in 1853.

One other piece of territory was acquired during these years, neither by conquest nor by lapse. The Nizam of Hyderabad had got hopelessly into arrears in the payment of his subsidy for the upkeep of the British military contingent. Under these circumstances the revival of the

The Berar Assignment.
old principle of territorial assignment seemed the only practicable alternative. Certain districts in Berar* were, therefore, transferred to the Company to liquidate the debt and to ensure the regular payment of the contingent for the future. The Nizam retained a nominal sovereignty over the ceded districts, and the surplus revenue was faithfully paid back into his treasury. Subsequent disputes were terminated by the recent settlement of Lord Curzon, which provides for the permanent lease of the territory to British Government.

The extraordinary breadth of Lord Dalhousie's mind was evidenced by the variety of steps taken to develop the vast dominions of the Company, now consolidated by conquest and annexation. Of late years the

(3) Development.

efforts of administrators in the provinces had been more especially directed to the conclusion of the reforms sketched out by Bentinck, the

Public Works
Department created.

abolition of inhuman rites, particularly amongst the wild aboriginal tribes, and the suppression of dacoity. Thagi and Sati had been practically wiped out before 1840. The energy of Dalhousie inaugurated a period of development whereby the now consolidated empire should be more firmly bound together and should attain the greatest possible

Uniform postage system.

measure of prosperity. A good postal service was for the first time organized, and the unusually low uniform rate of half an anna prescribed for internal postage. A completely new service for public works was created, and the country was covered with good roads and useful canals. Railways were planned on a generous scale, and future industrial prosperity of the country secured by the attraction of foreign

Railways and Telegraph
introduced.

capital for railway building. A telegraph system which rendered valuable service at the Mutiny was installed, in spite of white ants, wild beasts and electrical disturbances of the air. Trade and industry was stimulated not only by these improved communications but by the abolition of vexatious tolls, the improvement of harbour accommodation, and the building of light-houses. Consequently, both exports and imports doubled themselves

Great Educational
development.

even before Dalhousie quitted the country. The great Governor-General was the real creator of the new era of industrial activity which has made India what it is to-day. He also devoted himself zealously to the course of education, and ably carried out Sir Charles Wood's famous despatch of 1854. The new policy made the vernaculars the basis of popular education, English remaining the medium of instruction in all the higher grades. A vast network of educational institutions has, under the system thus initiated, been spread over

The India Act X, 1853.

India, culminating in the five existing universities, three of which were founded as early as 1857. During Lord Dalhousie's term of office the Charter of the East India Company was confirmed for the last time. The Act of 1853 relieved the Governor-General of the immediate administration of Bengal, by creating a Lieutenant-Governor for that province. The political centre of gravity had inevitably shifted further west with the conquest of the Punjab and Lord Dalhousie became the first Governor-General of India, in the strict sense of the term. The military centre was likewise shifted westwards, and the troops were concentrated in the Punjab and the North-West.

Constitutional changes
and military policy.

Amongst other talents Dalhousie possessed an eye for military exigencies more far-seeing than his Commander-in-chief. He desired the reduction of the over-grown Native army, and the increase of European forces; measures which if duly sanctioned would have given the outbreak of 1857 a very different character.

* Ceded to the Nizam in 1819 from Nagpur after the third Mahratta War. The Nizam's original territory has been scrupulously respected ever since the establishment of British Power.

His earnest warnings were, however, neglected. But the suppression of the mutiny was indisputable, assisted by two creations of the great Governor-General, the irregular frontier force in the Punjab, and the newly recruited regiments of Gurkhas. Had Dalhousie remained in office, the India which he had so nobly made would have been secured against the greatest shock it has ever suffered. But his indefatigable labour had worn him out, and in February 1856, a dying man, he left the country he had so ably served. Lord Canning, an old friend and college companion, was his successor.

Retirement of Lord
Dalhousie, 1856.

The Mutiny and Crown government.

The peace which reigned at Lord Canning's accession to power was not of long duration. Persian aggression brought about a war in the end of 1856, and though Outram's expedition soon forced the Shah to sue for peace, the Persian affair had indirectly a prejudicial effect upon the security of India. It

The Persian War,
1856-57.

withdrew some of the most valuable British troops from India at a time when the country was already very poorly garrisoned. The Sikh War had resulted in a great increase of native troops, and by the close of Dalhousie's reign, the sepoys numbered 2,33,000, the Europeans only 45,000. Dalhousie realised the danger of such disparity, but his protests were unheeded, and the authorities were lulled to a

Condition of the sepoy
army.

sense of false security. The European force, such as it was, was very unequally distributed, the vast stretch of country east of Agra being almost entirely garrisoned by native troops. Unfortunately, the temper of the sepoy army was distinctly bad. Many causes had tended to undermine the sepoy's respect for authority and his sense of discipline. The Bengal Army, which was infinitely larger and more important than the Bombay and Madras armies, was chiefly

Elements of unrest.

recruited from Rajput and Brahmin stock in Oudh and the North-West. The disaffection in Oudh consequent on Dalhousie's dethronement of its king was not without effect upon the sepoys in the British service. The atmosphere was further charged with religious disquietude, and the native mind was nervously apprehensive of attacks upon its ancient faith. The growing missionary activity, the spread of Western education, the introduction of the scientific inventions of Europe, seemed to the ignorant so many threats of worse things to come. It was an age of transition, and such periods seldom fail to cause trouble to government in backward countries, where the population is at once ignorant and profoundly credulous. Still, it is almost certain that no outbreak would have occurred had the condi-

The Mutiny primarily a
military revolt.

tion of the army been satisfactory.* The peasantry of India are not given to insurrection, and they had been the chief gainers from British

rule. The Chiefs, however much the annexation policy of Dalhousie may have threatened them, proved their loyalty when the trouble came, and when every opportunity was given them to declare against the British, had they wished to. Practically the only princes who participated in the Mutiny were dethroned chiefs, or their descendants, who had nothing to lose by playing for high stake. Thus the palace of the puppet Delhi Emperor became a focus of Mahommedan intrigue, while the widow of the last Raja of Jhansi, Nana Sahib the adopted son of the last Peishwa, and the emissaries of the dethroned

To some extent
engineered by agitators.

King of Oudh, vigorously stirred up the soldiery and worked upon their credulity to foment a widespread rebellion. To some extent then, the prevalent unrest was being intensified by agitators who sought their own ends, and some attempt was being made by different factions, though without duly concerted action, to create an explosion. But even then the rebellion might have never taken actual shape but for a grievous blunder on the part of the military authorities. The introduction of the greased cartridge fired the mine which actually caused the explosion.

In view of the religious disquietude, adverted to above, the sepoy nervousness should have been respected. As the sepoys did generally believe that the British aimed at making them outcastes* with the purpose of their ultimate

The cartridge incident
the chief proximate
cause.

conversion to Christianity, the introduction of the offending cartridge should have been deferred or altogether abandoned. Even though the rumours about the nature of the lubricants were in the main false, reasoning was impossible in a time of panic, and events showed that the spring of 1857 was the least suitable time for making innovations. The first acts of insubordination and incendiarism (Feb., March) were followed by a period of outward calm. But the panic had too deeply demoralised the army for it to be quieted by the forcible disbandment of mutinous regiments. A wider and more violent outbreak was imminent. And meanwhile the authorities, blind to the intending catastrophe, did nothing to avert it.

The storm burst at Meerut on May 10th. It was the immediate result of a severe sentence publicly carried out upon the members of an insubordinate

May 10, The Outbreak.

regiment. The sepoys at Meerut burst into open Mutiny, released their imprisoned comrades, broke open the jails, shot their officers, killed every European they could lay hands on, and made for Delhi. On their arrival at Delhi the next morning, the city population rose, the Europeans were massacred, and the restoration of the Moghul Empire was proclaimed. Had the panic at Meerut been controlled by some strong hand, the mutineers would have been pursued and overthrown before they had entered Delhi. As it was, no heroic measures were taken; spirit of daring seemed to have deserted the race, the English regiments at

* Sir John Lawrence (see his life in the R. I. Series, pp. 74-5) strongly held this view, and denied that there was any conspiracy for the overthrow of British rule. This valuable contemporary opinion is supported by all the evidence subsequently brought together.

* This fear had been fostered by the General Service Enlistment Act of 1856. Hitherto the bulk of the Bengal Army had been exonerated from foreign service. But the annexation of Lower Burma was responsible for the new Act which cancelled the cherished privilege. To the high caste sepoys of the Bengal Army, the crossing of the sea involved loss of caste.

Meerut were not allowed to move. Months of suffering and anxiety were the consequence of this gigantic error. The seizure of Delhi was the prelude to a general revolt through northern India. Communications between Calcutta and Peshawar were cut; Bengal and the Governor-General were isolated from the Punjab. Before the middle of June nearly every native regiment from Delhi to Benares mutinied. Some murdered their officers and massacred the Christian population. All marched off to swell the armies in the two great centres of disaffection, Delhi and Lucknow. But while the extensive plains from Delhi to the borders of Bengal rapidly fell into rebel hands, the greater part of India remained untouched. The Hindu princes refrained from insurrection: amongst other reasons they had little wish to further the interests of the Mogul. Some, as the Cis-Sutlej Sikh chieftains, lent the British valuable assistance, Haiderabad, the only great Mohammedan state, was restrained by the Nizam's powerful minister, Salar Jung. Madras remained loyal for the Madras Army was untainted by disaffection. Prompt measures were taken in Bombay to suppress hostile movements at the outset. The Punjab had been rendered loyal by the strong hand and the conciliatory government of John Lawrence and a band of able associates. At the outbreak of trouble the Hindustan regiments stationed in the Punjab were promptly disbanded before they could co-operate with the insurgents, and as the mutiny assumed vaster proportions over the border, the considerable European force at

Extension of the revolt
May—June.

Lawrence's disposal was ably seconded by the loyal Sikhs. Thus not only was the Punjab kept quiet, but it was able eventually to supply the force which dealt the first effective blow at the rebel position. The only other affected area besides the northern plains was Malwa, more especially the difficult tract of country known as Bundelkhand. The Maharaja of Gwalior remained loyal, though his army at length threw in its lot with the insurgents. Jhansi was held by the most resolute of all of the agitators, the Rani of that name, and many strongholds north of loyal Bhopal

were garrisoned by mutineers. But though the area of the mutiny was restricted, the lack of preparations on the part of the British, the number of the insurgents and the strength of their positions, combined to make the task of suppression one of extraordinary difficulty. Without entering upon a detailed account of the operations under which the insurgents eventually succumbed, it will be necessary to briefly outline the several phases of the war. First came the period of greatest anxiety, that of defence, when small British garrisons, notably at Delhi and Lucknow, maintained a heroic defence against vast armies, and by their efforts

The struggle,
Phase I.
Defence,
June—August 1857.

Delhi.



GENERAL NICHOLSON.

the most miserable tragedy of the Mutiny, and their extinction left a large force of mutineers free to direct the siege of Lucknow.

The second phase of the struggle was ushered in by two important events in September. Lawrence heroically risked everything to take Delhi, for were the Mogul capital to fall the British prestige would be rehabilitated. The capture of Delhi would, he knew, be the turning

Phase II.
Rescue,
Sept.—Nov. 1857.

* By Sir Henry Lawrence. He unfortunately was killed at the very beginning of the siege.

point in the Mutiny. He denuded the Punjab of troops and despatched them under Nicholson to reinforce the sorely tried garrison on the Ridge. Delhi was stormed and taken in the second week of September ;

Assault of Delhi,
Sept. 14.

A few days later Havelock, assisted by Outram, relieved Lucknow. He had reached Cawnpore in July too late to save the devoted garrison. Nor, despite some ten victories, had he been able to advance before through the hostile country to the capital of Oudh. Even with the reinforcements brought by Outram the relieving army numbered less than

and the escaped mutineers from Delhi, to a number not far short of 200,000 men.* But the blockaded Residency, reinforced by Havelock in September, held out gallantly until the Commander-in-Chief fought his way through and completed the rescue. The devoted garrison was withdrawn, the untenable position in the midst of a hostile city abandoned, and the united army was now free to commence the campaign of conquest. Thus ended the second phase of the Mutiny War.

Meanwhile the garrison left by Sir Colin at Cawnpore to secure his communications had been met and arrested by a new foe, the Gwalior Contingent, now for the first time actively aggressive, and led by Tantia



Rt. Hon. SIR JOHN LAWRENCE Bart, G.C.B., K.C.S.I., &c.



Lieut.-Genl. SIR JAMES OUTRAM, G.C.B.

3,000 men, too small a force to liberate the garrison, but sufficient to rescue from the imminent danger of capture. By the end of September, therefore, the torrent of rebellion had been stemmed, but the forces in the field were as yet inadequate to the great work of reconquest. Troops were meanwhile pouring in from England, and Sir Colin Campbell, fresh from his victories in the Crimea, had arrived to assume supreme command. Through the early autumn months he was occupied in organizing his campaign, but it was not until November 9th that he crossed the Ganges to effect the final relief of Lucknow. The rebel band investing at Lucknow had been swollen by escaped prisoners, robber tribes

Topi, the ablest leader the mutineers produced. Sir Colin Campbell attacked the rebel force on December 6th, and routed it with great slaughter. Tantia Topi then retired to Kalpi. The victory in the field was followed by a carefully concerted campaign of conquest embracing the whole disaffected area. The Commander-in-Chief invaded Oudh with considerable forces, broke the back of the resistance by the capture of Lucknow, and subjugated Rohilkhand. Sir Hugh Rose, meanwhile advanced from Bombay through Central India, took

Phase III.
The Conquest Dec. 1857-
June 1858.

* At the very lowest a third of these must have been trained soldiers.

the rebel position in the rear, and re-established British supremacy throughout Malwa.

The reduction of Lucknow was a most formidable undertaking. Skillful strategy and resolute fighting however overcame the most obstinate resistance, and the city together with the Residency was finally occupied on March 17th. The moral effect of the capture was exceedingly great, but most of the rebel garrison unfortunately escaped to swell the forces in Rohilkhand and to hold the forest strongholds of Oudh. But before the end of May a concentration of forces cleared Rohilkhand and recovered Bareilly its capital. From this time forward resistance

Sir Colin Campbell's operations in the north.

Capture of Lucknow, March.

miles, crossed numerous large rivers," took upwards of 150 pieces of artillery, one entrenched camp, two fortified cities, and two fortresses strongly defended, fought sixteen actions, captured twenty forts, and never sustained a check against the most warlike and determined enemy led by the most capable commanders then to be found in any part of India. The campaign roughly covered the first half of 1858. Having restored order in Holkar's dominions, the General, in January, led his small force (only 4,500 men, partly sepoys) to the relief of Saugor, where a weak company of artillery and forty civilians had kept the enemy at bay for seven months. But the capture of Jhansi was the most remarkable achievement of the campaign. It was held by a

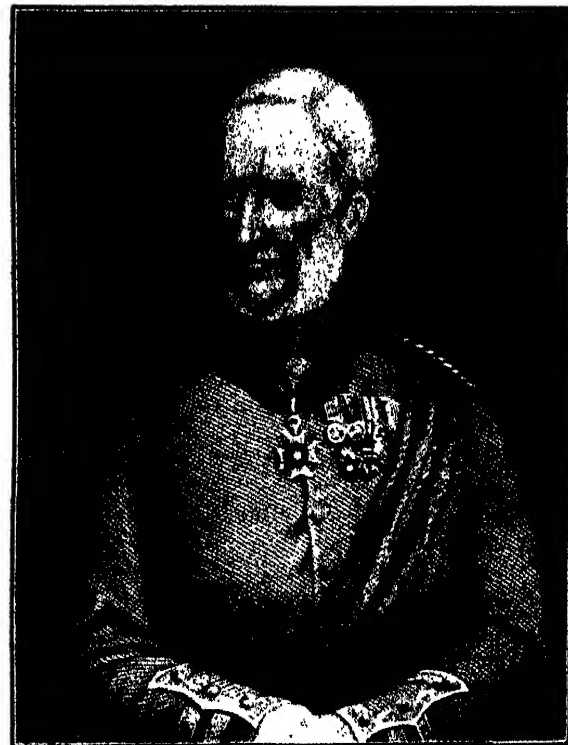
Saugor and Jhansi.



General LORD CLYDE, G.C.B.

took the shape of guerilla warfare, and the ultimate extirpation of the rebel movement was assured. The great campaign in Central India was more glorious and of a far more romantic nature than Sir Colin's operations in the North. Sir Hugh Rose (afterwards Lord Strathnairn) was a soldier of commanding genius. He captured the strongest forts and routed the rebel armies in rapid succession. "His rapid marches and indomitable energy struck terror into their hearts." Through the most impracticable country, in the overwhelming heat of an Indian summer, without effective maps, with a force decimated by sunstroke and disease, he pursued his victorious course. "In five months the Central India Field Force traversed 1,085

Sir Hugh Rose's operations in the south.



Major-Genl. SIR HENRY HAVELOCK, K.C.B.

force of 10,000 men stimulated to the greatest exertions by the resolution of their masculine Rani. When Tantia Topi arrived with a relieving force Rose attacked him without relinquishing the siege and routed him in an engagement where the rebel losses almost equalled the number of British combatants. Then on April 3rd Jhansi was stormed and the muntineers lost their chief stronghold in Central India. On May 15th after further successes the Central India force came into touch with Sir Colin's flank on the Jumna, and a few days later the fortress of Kalpi was won after a general action of a most unequal character. During the engagement the general received his fifth sunstroke and his men were pros-

Kalpi.

trated by hundreds. Central India had now, as was thought, been completely reconquered, and the ever victorious army was about to be broken up when the astounding news arrived of the capture of Gwalior by Tantia Topi and the indefatigable Rani of Jhansi. Sir Hugh Rose ill as he was, lost no time in marching to its recapture. The operations at Gwalior added another chaplet to his laurels, and the rebel army was almost annihilated a few days later by Sir Robert Napier. British ascendancy was now secured between the Narbada and the Jumna, the vindictive Rani had been slain in battle and Tantia Topi was a fugitive.

The last phase of the Mutiny covered the period of guerilla warfare in Oudh and the hunting down of Tantia Topi in Malwa. A cordon of forces gradually swept Oudh clear of rebels, and by May 1859, the last embers of rebellion had been stamped out. From first to last the revolt had occupied two years. But the last twelve months were only concerned with supplementary operations: the Mutiny had been practically suppressed by the early summer of 1858. For months before that the issue had ceased to be doubtful; it was only during the period which preceded the fall of Delhi that the fortunes of England in India seemed to be trembling in the balance. But for some such signal demonstration of power the wavering powers of India would presently have thrown in their lot with that which seemed the winning cause. Lord Clyde's (Sir C. Campbell) rescue of the Lucknow garrison, and great victory at the close of the year over Tantia Topi, struck a staggering blow at the rebel cause; his capture of Lucknow a second; Lord

Strathnairn's campaign in Central India a third. The honour of these splendid successes is justly due to

Phase IV.
Stamping out the embers,
June 1858—May 1859.

the generals, by whose genius, and the troops, by whose gallantry and endurance, they were achieved. The general superintendence and direction of the entire series of campaigns, by which and the mutiny was stamped out and the

Retrospect.

pacification of India secured, rested with the Governor-General. The responsibility was Lord Canning's; and to him, too, his countrymen's gratitude is due for a result which restored the endangered prestige of British arms, and settled conclusively the question of British

supremacy in the East. * His calmness under the strain of disaster and in the hour of triumph was tainted by no breath of panic or of violence. When the work of conquest was complete, the

*Lord Canning's labours
in the crisis.*

pacification of the still disturbed country could not have been in safer hands. The tragedies of 1857 roused in the British nation a lust of blood without parallel in her history, and to Canning it fell

*He resists the clamour
for indiscriminate
vengeance.*

to curb the spirit of vengeance so inimical to any complete pacification. When the European population in Calcutta lost its head, and London newspapers denounced all mildness as timidity, the Governor-General insisted on holding

the balance even, and forbade the indiscriminate slaughter of rebels. Justice, stern and inflexible justice, was dealt out to murderers and the accomplices of murderers, but justice and expediency alike forbade the promiscuous execution of all who had borne arms, numbering as they did some hundreds of thousands of men. Canning nobly and firmly resisted the violence of popular clamour and braved the virulence of personal abuse, staunchly insisting on discrimination and conciliation, whereby alone the race hatred engendered in 1857 was prevented from becoming ineradicable.

When the peril of the Mutiny had safely passed away, the lessons it had taught remained to be applied. Not only must the guilty be punished and the misled be pardoned; a completely new policy had to be inaugurated. The two main lessons to be derived from the events of 1857 were that the sepoy army

which had been regarded as the main support of

*Lessons taught by the
Mutiny.*

British rule, was its greatest danger, and that the native princes who had been treated as its greatest danger were in fact its strongest bulwark. Accordingly the native army was reduced in strength, and the British garrison in India strengthened, the ratio of European and sepoy soldiers being

*Consequent change of
policy.*

fixed at one to two. At the same time a policy of confidence towards the native princes replaced a policy of suspicion. The right of adoption



EARL CANNING, G.C.B., G.M.S.I.

* *Canning*, by Sir H. S. Cunningham Rulers of India Series,

was conceded and the continuance of all native states under British suzerainty guaranteed on condition of good government. The new régime was inaugurated by the transference of the Government of India to the Crown and the extinction of the East India Company.

Extinction of the
Company.
Crown Government
inaugurated, 1858.

The Mutiny had shown how clumsily the existing system worked, and what delays the dual government in London involved. The position of the Company was anomalous, and it had been almost reduced to a fiction by the Acts of 1784, 1813, 1833. The Act of 1858 was the natural complement of these. It was a formal rather than a substantial change. It replaced the old constitution by another not radically dissimilar, but more effective. It placed the Government of India on the footing it now occupies. The machine has undergone certain necessary developments, but it has suffered no organic change since that date. The Company with its Directors became a thing of the past, and the Parliamentary Board of Control with its President was replaced by an advisory India Council in London presided over by a Secretary of State.

The new constitution
and the Royal
Proclamation.

The Governor-General became the Viceroy of the Crown, but his machinery of government was retained. The European forces of the Company were merged, though not without incipient semi-mutiny, with those of the Crown, and the naval force of the Company came to an end. The Act of 1858 was accompanied by a Royal Proclamation reflecting the personal sentiments of the Queen, breathing feelings of generosity, benevolence, and religious toleration. The proclamation set the seal on Canning's policy of conciliation, and nobly inaugurated the new era of pacification and prosperity.

Lord Canning devoted himself assiduously to combat the disastrous effects of the Mutiny. By official tours he contrived to strengthen the bonds between the government and the native princes; by wise legislation

Canning inaugurates
the new era.

he strove to conciliate the landed classes; by financial retrenchment he tided over impending bankruptcy and rendered the government more able to cope with the tasks which the new era of development had in store for it. Though the Act of 1858 did not effect any startling changes in the constitution of the Indian government, a Supplementary Act in 1861 (the Indian Councils Act) brought about certain necessary improvements. The Executive Council of the Viceroy was placed upon its present basis, as a virtual cabinet with the Viceroy as its Premier. The duties of the different departments were distributed

The Indian Councils
Act, 1861.

among the members and the cumbersome system of bringing every detail of public business before the whole council was happily abandoned. The Legislative Council created in 1853 was retained, similar institutions were established in Bombay and Madras, and the Government of India was empowered to create local legislatures in the remaining provinces whenever the occasion demanded. Finally the Indian High Courts Act of the same year amalgamated the Crown Courts and the Companies Courts in the three Presi-

dency towns. The existence of the old dual judicature, which dated from the days of Warren Hastings, was an anomaly which did not serve the cause of simplicity and efficiency in justice. It fell to Lord Canning to bring these changes into operation and to start the machine of government on the new lines during his last year of office. Shattered by anxiety and toil, he left India in 1862 to die before the year was out. India had killed him as it had killed his eminent predecessor. But he had accomplished much, and there are few nobler names on the roll of Anglo-Indian fame than that of Canning.

Retirement of Canning,
1862.

Between 1862 and 1905 ten Viceroys have presided over the Indian Government. Throughout this period the country has enjoyed internal peace. Frontier troubles have been frequent, and considerable wars have been waged beyond both the North-West and the North-East frontier; but the main task of Indian administrators since the Mutiny has been concerned with peaceful development and civil government. It will be enough to catalogue under a few main heads the more important efforts and achievements of British rule in India during the last half century.*

Lines of Development,
1858—1905.

First as to the constitution. The relations between the Secretary of State and the Viceroy remained as fixed in 1858, and efforts have been made to keep Indian interests as far as possible outside the arena of party politics. The Viceroy's Executive Council has been slightly enlarged† in order to keep pace with the growing complexity of modern government. Fresh Lieutenant-Governorships and Chief Commissionerships have been

created from time to time as the number of growth of population has demanded the sub-division of provinces. Legislative Councils have likewise increased, while the composition and functions of all the Indian legislatures have been altered to meet the more liberal tendencies of the age. Thus, by the Act of 1892 the number of non-official members has been increased, a modified form of election has been applied to them, and the right of interpellation conceded.

The elective principle was for the first time introduced on a wide scale by Lord Ripon's Act of 1882,

which authorised the creation of self-governing Municipalities and District Boards. This departure was confessedly an experiment, and its results have not as yet justified any further development of popular control.

The relations between the Central and the Provincial Government have undergone considerable change.

* For the sake of reference we append a list of the Viceroys between Lord Canning and Lord Minto, the present ruler.

1862-3 Lord Elgin.	1880-4 Lord Ripon.
Interim V.	1884-8 Lord Dufferin and Ava.
1864-9 Lord (Sir J.) Lawrence.	1888-93 Lord Lansdowne.
1869-72 Lord Mayo.	Interim.
1872-6 Lord Northbrook.	1894-9 The second Lord Elgin.
1876-80 Lord Lytton.	1899-1905 Lord Curzon.

† It contains six ordinary members, besides the Viceroy, The Commander-in-Chief ranks as an extraordinary member.

Decentralization in legislation was followed by decentralization in finance. The principle of making over assignment of revenue to the Provincial governments both relieved the Central government of much responsibility and encouraged economy in the Local governments. According to Lord Mayo's method, known as the Provincial Contract system, each provincial government receives a fixed yearly consolidated grant to enable it to defray the cost of its principal services. The money is distributed at its discretion, and the savings go to swell the local treasury. Previously the provinces had possessed no financial responsibility and were under no inducement to economise, as all savings lapsed to the central government. The principle inaugurated so ably by Lord Mayo in 1871 has received further developments but continues to be the basis of Indian Finance to this day. It is strictly in accordance with the methods employed by the most efficient governments of the West.

The foreign policy of India has been concerned of late with petty border tribes and larger Asiatic powers. Under the

first category come a host of states and tribal organizations from Bhutan to Chitral and Baluchistan, under the latter may be ranked Burma, Afghanistan, China, and Russia. A war with the Wahabi fanatics in the North-West was forced upon the government in 1862,

The Wahabis,
1862-4.

and was not put down without considerable losses. Lord Lawrence who arrived in India as these operations were being brought to a close, was compelled also to wage a troublesome mountain war against the aggressive kingdom of Bhutan. The war, owing to difficulties of country and climate,

Bhutan War,
1864.

was hardly glorious, but the Bhutanese were punished by the loss of a belt of territory, and have remained quiet ever since. Lord Lawrence was also invited to interfere in a civil war then raging in Afghanistan, but creditably adhered to the principles of non-intervention dictated by the experience of 1842. The Russian expansion in Central Asia continued throughout this period to cause anxiety in India, but Lord Mayo came to a friendly arrangement with the Russian government (1869), by which each power pledged itself to respect the others sphere of influence. But the boundaries of these spheres were incompletely settled, and a few years later the uncertainty of the situation contributed to bring about fresh trouble with Afghanistan. The relations of the Amir with the Government of India had been strained since the time of Lord Lawrence, and when Sher Ali, disgusted with the British occupation of Quetta,* inclined to friendship with Russia, the Czar did not shrink from the prospect of establishing his influence in Afghanistan. The Russian menace together with a direct insult perpetrated by Sher Ali on a British Envoy,

2nd Afghan War,
1878-9.

* 1876. The policy of non-intervention in Baluchistan was broken through in this year. The Khan of Kelat became a Feudatory prince and territory was ceded. Quetta in the new territory became an important military outpost of the Empire.

occasioned the second Afghan War. The country was rapidly occupied by British troops; Sher Ali fled, and his son Yakub Khan was enthroned at Kabul on condition of receiving a British Resident. But the settlement was as displeasing to the Afghans as that of

3rd Afghan War,
1879-81.

1839. Sir Louis Cavignari, the Resident, was murdered, the

Afghans broke out into rebellion, and another war was necessary. The brilliant operations of Lord Roberts were crowned with success, a new Amir, Abdurrahman, was established at Kabul, and due vengeance having been obtained, the British withdrew from Afghanistan in 1881. The relations with that country have been consistently friendly since that date, and the Amir has been regarded as an allied prince, pledged to * abstain from dealings with Russia or other foreign powers, in return for the guarantee of his independence and the integrity of his dominions. The

Trouble with Russia, the
Pendjeh incident, 1885.

Afghan boundaries were definitely settled by a joint Russian and English Commission in 1885. Disputes on that occasion nearly led to an Anglo-Russian war, but the danger passed, and Russia has now ceased to be a cause of acute anxiety to the Indian Government. Lord Dufferin, the Viceroy whose unrivalled knowledge of diplomacy went far to adjust these difficulties, was compelled in 1885 by the inroad of organised gangs of Burmese robbers, and the insolence of the Burmese Court, to declare war upon King

3rd Burmese War,
1885.

Thebaw of Mandalay. Little resistance was encountered by the expedition; the king was de-

throned and Upper Burma was annexed. The tyranny of Thebaw and a long course of misgovernment alone would have justified such an action. During the last twenty years various frontier wars have been waged with a view to punish troublesome hill tribes. Of these the Chitral Expedition (1894), and the Tirah Campaign (1897), were the most important. The

Punitive expeditions.

North-West Frontier is now in a more settled condition, and the establishment of a separate frontier province by Lord Curzon was calculated to give the central government a tighter hold over the turbulent hill country on the skirts of the Empire.

Of no less importance and difficulty than the regulation of the border country was the adjustment of relations between the Supreme Government and the feudatory, or protected princes. We have seen that the new policy of confidence was inaugurated by the first Viceroy of the Crown. The Princes were no longer to fear the absorption of their states in British territory; the native principalities were to retain their internal independence under the protection of the British Sovereign. The responsibility of suzerainty however involved some general supervision on the part of the British Government; it meant that the Crown through its representative could interfere to prevent misgovernment as the price of its continued

Government and the
Protected Princes.

* This pledge is regarded as of such importance that, that in return for it the guarantee of integrity has been of recent years supplemented by a material subsidy. Still this does not constitute the Amir a subsidized prince in the technical sense applied to Indian feudatories.

support. What was aimed at was the loyal co-operation of the Native princes in the work of development and progress. Lord Lawrence carried on the task begun by Canning, and Lord Mayo completed the policy of conciliation. He enunciated more clearly certain principles which have since regulated the relations of the British

Lord Mayo's firm but
conciliatory policy.

Government and the protected States. The two fundamental principles were of an opposite character but not contradictory. The first was a fixed resolve to abstain from annexation, the second was a firm determination to interfere when British interference became necessary to prevent misgovernment. Such interference was, if possible, to take place without the dethronement of the offending ruler, but if deposition became necessary, a successor was to be chosen. Where feasible the successor should be a minor, so that the state might be placed on a sound footing through the administration of British officers or a Native regency. Lord Mayo also realised that much could be done to minimise the chances of misgovernment by the judicious education of young princes. Private education of the sons of more important feudatories by British officers, and public education of the lesser chieftains in chiefs colleges, were expedients devised by him to train the future rulers, and to inculcate a due sense of their high responsibilities.* The system has answered admirably: the cases of misgovernment and consequent deposition have been rare in the intervening years, and the Native States of India continue to fill an important place in the economy of the peninsula.† They form an integral part of the empire, and their loyalty has been time and time again proclaimed and proved. Had the Romans been able to retain the Native Rulers they had conquered, the history of Rome might have been far different. For personal gratitude begets a far more active loyalty than the most beneficent of governments is capable of inspiring.‡

The relation of the Government to the people has also undergone great improvement since the abolition of the East India Company. Much had indeed been accomplished in the later days of the Company's rule. The conquered provinces enjoyed a peace they had not known for generations. Protection was given to life and property. The sea was cleared of pirates, the worst excesses of banditti were suppressed, and the most barbarous customs of the past were successfully broken down. War was persistently waged upon the wild beasts, and the feudatory hill tribes were partially held in check. Justice was distributed with impartiality; revenue was collected upon a regular and generous system. Such blessings at least were conferred by the Company upon the millions of India when once the responsibilities of Empire

* See Hunter's Mayo in the Rulers of India Series.

† They are over 600 in number and occupy 38 per cent. of the whole area of India. Being however, as a rule, thinly populated they only possess about 23 per cent. of the whole population.

‡ The most complete study of the present position of the Native States in the Indian political system is to be found in Sir Lee-Warner's valuable monograph "The Protected Princes of India." The various treaties and engagements binding them to the British Government are given in Aitchinson's *Sanads*, etc.

had been forced upon the Directors by Parliamentary pressure. Roughly the last fifty years of the Company's rule had been marked by an earnest endeavour to benefit the governed. That these efforts succeeded in conciliating the people is, however, far from certain. With such striking exceptions as the Punjab, the native feeling was distinctly hostile. Many of the ablest administrators before 1857 despaired

of ever commending British rule to the Indian people. But a great improvement is noticeable in public opinion during the following generation.

The administrators of the Crown did honestly strive to carry into action the generous sentiments breathed by the Royal proclamation of 1858. The advantage of continued peace were amply utilised for the development of the country and the improvement of the several classes of the community. All that had been given by the Company was given now, and more. A better police was inaugurated by the Act of 1861, simpler judicial procedure, an increase in the

Improved conditions, number of courts and a uniform code of laws, made justice more

effective, while it brought it nearer to the poor man's door. The Government deliberately adopted the policy of confidence by an extended system of education and a free press. Natives were admitted to office in greater numbers. The material prosperity of the people became a more special care of the Government; the wealth of the country increased, and a well-to-do middle class was created. The agricultural

community, the widest class of all, obtained very special recognition, and the land has been enabled

to bear the incubus of a vastly increased population. While the hereditary interests of the landlord class—as in Oudh—were guaranteed, and if anything supplemented* the rights of tenants were more definitely asserted. The Bengal Tenancy Act of 1885, for instance, went far to atone for the injustice inflicted on certain classes by the premature zemindari settlement of Cornwallis. The various classes and communities were thus treated in a considerate and sympathetic manner, and not sacrificed in order to create a symmetrical and uniform system. Lord Mayo, the most conciliatory of Viceroy, made special efforts to help the Mahomedans forward in the path of progress. Proud of their past glories, conservative in temperament, they had fallen behind in the race for life under the new régime. The provision of special educational facilities for Mahomedans by Lord Mayo was the first step in that long course of policy which has aimed at making the old ruling class of India satisfied with their present position. The success of these efforts, so ably consummated by the late Viceroy, has effected a complete change in the Mahomedan attitude towards British rule.

The reforming tendencies of the post-mutiny governments may be most conveniently summed up under two heads, moral and material amelioration. The material condition of the Indian population has made

* Under the Viceroyalty of Lord Lawrence. His agrarian settlement practically made Oudh a loyal province.



THE PRINCE OF WALES' VISIT TO DELHI, 1875.
H. M. The King-Emperor, as Prince of Wales, entering Delhi, in the year 1875.
(Reproduced from the painting by Vereshchagin in the Victoria Memorial Collection, Calcutta.)

great progress in the present era of development. Despite increased population there is ample evidence to show that the agricultural classes are richer to-day than in the past. The land is assessed at a very much lower rate than under Mahommedan or Mahratta rule. More allowance is made for natural calamities, and more security is granted against human oppressors. The value of the land, owing to agricultural improvements and irrigation works, has been raised, and in many provinces the rent has not been raised in the same proportion. The improved transport facilities brought about by the age of steam have led to the realization of great profits on agricultural produce. India has become an exporting country of the first grade. And when famine casts a blight upon the land the material welfare of the defenceless peasant is sedulously guarded by a paternal government, so that the loss of life is reduced to a minimum. Government in fact, under the influence of civilized ideals, undertakes a wider responsibility than any Indian government of the past. While the taxation per man is lower than in ancient India, more efficient protection and assistance is given in return. Again, the industrial India of to-day is the outcome of British rule. The great cities, the growing commercial enterprises, the extending trade and the monied classes are almost entirely the product of the last half century. Riches there were under the Moguls, and valuable industries, but these were practically confined to certain privileged classes and certain special districts.* Space does not suffice to prove these contentions in detail, but a little careful observation aided by statistics will be sufficient to indicate the enormous material progress made during the last half century. By no fair standard of comparison can it be shown that India is growing poorer.

(a) Material amelioration.

Moral progress has been achieved by peaceful conditions, contact with the high civilization of the West through the instrumentality of enlightened government and education and by legislation. The warfare and the insecurity of a turbulent age are more calculated to degrade than to exalt. The *Pax Britannica* has not only conferred material blessings, but has once again in India made possible the widespread cultivation of learning, science, and the arts. Life and property being secure, mental culture and moral improvement can proceed unchecked. Old Hindu ideals have received new life, and are being supplemented by the ideals of the West. An educational system of vast extent under State control is rapidly removing the reproach of ignorance from the Indian people. A sound secular education reaching from primary school to university is profoundly influencing every community in the Peninsula. Technical and industrial instruction is equipping the intelligent classes to compete with commercial states on equal terms. The leavening influence of education should

(b) Moral amelioration

make it possible for India to cast off the sloth, ignorance, and narrowness, into which she had fallen, without severing herself from all that is most noble and worthy in her past. Probably the history of the future will record this great moral and intellectual awakening as the most remarkable achievement of the present age. Material prosperity has, in other places and at other times, been restored to a nation by foreign rule, but intellectual life on the same scale, never. Moral progress has also been furthered by the instrumentality of legislation and the efforts of enlightened native opinion. Barbarous practices such as sati and infanticide had been almost extirpated by the Company's administrators, but there still remained in the Hindu social system certain evils which had crept in during the deterioration of the early Aryan civilization.* Such were infant marriage and the prohibition of widow re-marriage. The Age of Consent Act of 1890 forbade the consummation of a marriage in the case of a girl before the age of twelve. Amongst the people social reformers and associations have for years been fighting for the cause of widows, and in the direction of the marriage of child widows, at least much has been accomplished. Powerful organisation such as the Brahma Samaj aim at social regeneration no less than at the purification of religion. A return to the simpler canons of primitive Hinduism will, amongst other resultant advantages, consciously assist the tendencies of the time in loosening the grip of caste upon the people. The caste system is already staggering under the attacks of modern civilization, but it must be more completely overthrown if India is to compete on equal terms with other Nations.

Zeal for peaceful progress has not left the Government of India blind to the necessity of maintaining adequate preparations for war. An armed force of 225,000 men is a guarantee of internal peace and provides immunity from invasion by land. The British navy is at the disposal of all parts of the Empire and would hasten to the defence of India in the perhaps unlikely event of an attack by sea. The powerful police force is an additional protection against internal commotion. Since the mutiny the principle of maintaining one British soldier to two sepoys has been fairly constantly observed, and the artillery has been almost entirely concentrated in British hands. The ranks of the native army have been very largely filled with Sikhs, who are not unwilling to face garrison duty across the seas. Native troops have been gratified as far as possible by their employment abroad, and quite recently distinguished themselves in China. The Indian army has been of late brought up to the highest condition of efficiency, and in time of war it would be assisted by the select bodies of Imperial Service troops supplied by the loyalty of the native princes. Military policy has recently aimed at making India self-supporting with regard to arms and munitions of war, a policy not only sound in itself, but by reason of the employment of native labour productive of advantage to India on the economic side.

Defensive measures.

* These movements are admirably set forth in Dr. Bose's History of Hindu Civilization during British Rule.

* E.g., Agra, Bengal, Gujerat. The better distribution of wealth and the higher standard of living to-day are facts capable of ample proof. See Hunter's "*India of the Queen*," especially the essay—England's work in India.

A territory the size of Europe without Russia is thus intelligently governed and efficiently protected by the united brain and strength of England and of India.

Outlook for the future. A vast congeries of conflicting nationalities is kept at peace and helped along the path of progress under the ægis of the British Empire. The highly complex and minutely organized government of India derives its stimulus from the people who have raised it out of chaos. The continuance of British control is a vital necessity to the peace and well-being of the countless races and states which compose the Indian Empire. Should these different races be ever fused into a single nationality the predominance of England might cease to be essential. Meanwhile the partnership is a mutual gain, and the best interests of India are fostered by loyalty to the British Crown. It is no light privilege to be an integral part of the

greatest Empire in history and that the tie is no shadowy one has been forcibly demonstrated during the late visit of India's future Emperor.* Half a century of unparalleled progress under Crown Government has brought India to the threshold of even greater achievements. The all-pervading activity of the late Viceroy has braced up the machine of Government for fresh efforts. But the zeal of authority must be seconded, even more earnestly, by private enterprise and popular endeavour. If Government and people work hand in hand more tolerantly and sympathetically it is not rash to suppose that the twentieth century will witness a period of extended commercial enterprise, and a renewal of intellectual life such as shall make India a still more powerful factor in the state-system of the modern world.

* His present Majesty is the first British Emperor of India. The title of Empress was assumed by Queen Victoria in 1877.





**The Harbour of Port Cornwallis—ISLAND OF GREAT ANDAMAN—
with the Fleet getting under weigh for RANGOON. (First Burmese War.) From an engraving.**

The History of Burma.

PRE-HISTORIC BURMA.

THE era now generally in use among the Burmese began in the year 639 A. D. and Mr. Parker in his book, "Burma, with special reference to her relations with China," thus sums up all that is known of Burmese history up to the establishment of the existing Burmese era :—"During this period Buddhism introduced from some place or other, more or less successfully struggled with the previously existing superstition, character uncertain." But, though we have little or no trustworthy historical information as to what happened in Burma previous to the seventh century of the Christian era, it is quite possible to reconstruct in rough outline what the earlier history must have been. For one thing it is fairly certain that all the races now inhabiting Burma were originally immigrants from what we now know as Western China, from Tibet, and from the North-Eastern portion of India. It is possible to trace the connection of the numerous languages and dialects they now speak with the languages of the countries from which they sprung. Their features too tell the same tale clearly enough. Their languages have not as yet been sufficiently studied by competent scholars to yield full information in every case as to the exact source from which every obscure tribe of to-day originally came, but it is practically certain that they were all immigrants.

Whether they ousted an aboriginal race is uncertain, but there is at least some probability in the theory that the original inhabitants of the country were Negritos. This race is still found in the Andaman Islands quite near to Burma. It is also found in part of the Malay Peninsula, in the Philippines, Papua and some of the neighbouring islands. The probability is that in the remote past it was much more numerous than it is now, and the remains of the race still to be found in the Andaman Islands may well be the descendants of Negritos who escaped from Burma long before the Christian era and in the seclusion of these small islands have survived to the present day. Against this theory there is the fact that no tradition of a conflict with an inferior aboriginal race has been preserved among any of the immigrants. But, although the newcomers were far from civilised as we understand civilisation to-day, they were immeasurably superior to the wretched Negritos, so the latter could make no resistance of a character likely to survive in legend. They would rather hide in the dense forests until they died or were driven out, and to the first immigrants with whom they came in contact they would be merely an annoyance, scarcely so formidable a foe as the tigers or other wild beasts. When more than one stream of immigrants had come, they had plenty more serious fighting with each other, so any previous conflicts with the Negritos, if there had been any, would be speedily forgotten.

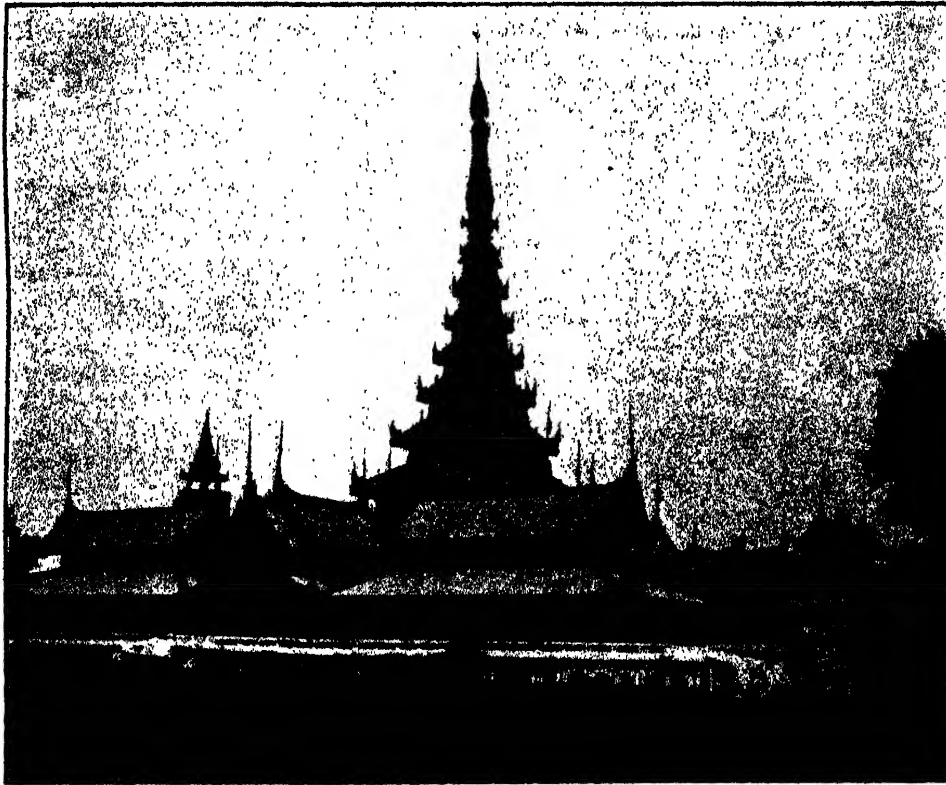
The immigrants came from different sources, though they were all of Mongolian stock, and they came too, no doubt, often at wide intervals of time. Their fortunes too were very various. Some got down into the fertile plains and developed into powerful kingdoms; others, shut up in some small valley, or some portion of a mountain range, remained little better than mountain clans.

This difference in their fortunes led also to great differences in their civilisation. Secluded communities are more apt to fall back than to progress in civilisation. The savage Was are a conspicuous instance of this. According to tradition they at one time held all the country as far south even as Chiengmai and were not more savage than their neighbours. Now they are mainly confined to a block of territory on the north-eastern frontier extending for about one hundred miles along the Salween and about half that distance inland to the water shed between that river and the Mekong. Within this area there are very few people who are not Was. Beyond it there are a few isolated Wa villages, and it is only on the fringes of this block that other races, chiefly Shans and La'hu, venture to settle. It must be admitted that the Was are not desirable neighbours. The Chinese, Burmese, Shans and other races living near, all believe them to be cannibals, but this accusation is untrue.

Every Wa village, however, has its collection of skulls, and at least one new one must be added every year, as otherwise, there would be a failure of the crops, the villagers believe. The greater the distance from which the skull is brought, the more potent it is in agricultural results. Naturally the Wa never misses a good opportunity of adding to the accumulation of skulls in his village, but in March and April when the time is approaching for the sowing of the new crop, parties go out from each village head hunting. As Sir George Scott puts it in the *Upper Burma Gazetteer*, "legitimate head cutting opens in March and lasts through April." In these months journeying is exciting in the hills, as any travellers are fair game to the head hunters. The neighbouring races, however, divide the Was into wild Was and tame or domesticated Was. The former are head hunters refuse to have any dealings of a more neighbourly kind than head hunting with other races and regard clothes as superfluous. They are also mere spirit worshippers. The latter have given up head hunting, appear at markets partially, sometimes even decently clad and have some tincture at least of Buddhism. Of course, the division between wild and tame Wa is very indefinite, many of the villages being in a state of transition between the two.

Isolation in the case of a small community tended not only to the loss of such civilisation as they had previously possessed, but also to increase the difficulties of language. The intricate mountain ranges of the country bounding the Irrawaddy valley served to seclude settlements, and the inhabitants of a remote valley often so changed their dialects in two or three generations that they became unintelligible to their nearest neighbours. Hence the multiplication of dialects so conspicuous in all the hilly parts of the country. Moreover, until quite recent times slave-raiding was universal all over Indo-China, at one time on a huge scale, latterly more in the fashion of the rape of the Sabine women. Dr. Richardson, who visited Chiengmai (Zimme) in 1836, says the Chief

of wealth, there are no permanent buildings except the interminable useless bricked-up Buddhist pagodas; no royal tombs, no municipal traditions; no really ancient inscriptions, and what old religious inscriptions there are, seem generally to be utterly devoid of historical interest--in short the country is just as much a barren waste, from a civilised and civilising point of view, as the steppes of Mongolia; generation after generation of its aimless people have gone and come in the same listless way as the Tartar nomads, for all the world like so many butterflies or sheep." There is an element of truth in this, but it is unfair all the same. Accumulation of wealth there can scarcely be until a fairly stable government has been established. Even in historical times the history of



THE PALACE, MANDALAY.

boasted that 27 out of his 28 wives had all been taken prisoners by himself. Most of the women thus captured, or, at least, the most prepossessing ones, went to the Chief, no doubt, but the captains and soldiers would secure some also. The male prisoners were often killed, but sometimes they were kept to till the ground, and so helped, when they married, in the transformation of the people. Altogether it has produced a fine tangle and the comparison of languages, of legends and of traditions, which alone can evolve some order out of the existing chaos, has scarcely been begun as yet. Few men in Burma have the requisite leisure and scholarship to attempt it.

Mr. Parker condemns the races of Burma in the following passage:—"There is no accumulation

Burma is very much a succession of ruthless wars; and in pre-historic times the same conditions must have prevailed in an even greater degree. The Was, for instance, we may be sure, were not driven back into the small area they now occupy without fierce fighting, continued, probably, through several generations. The same was no doubt the case with many of the other races and tribes inhabiting the country. Constant war, rapine and slaughter are not conducive to the advance of civilisation, and the marvel is, not that the races which had come out on the top in historical times should have evolved so little civilisation, but that they should have made the progress they had. Burmese and Talaings fought fiercely with each other to the last; now one and then the

other getting the best of it. Yet in the intervals between these ruthless wars, they built pagodas, some of which have lasted for centuries; and in the monasteries, which were to be found in every village almost, education was brought within reach of every lad who cared to take it. An eastern race which has had, for ten centuries or more, something like universal education for the males at least, is not to be summarily condemned as having conspicuously failed to advance in civilisation. A Chinese description of Burma is given in the chapter in "Southern Barbarians" in the T'ang history. A great deal of what is there stated might have been written in the nineteenth century instead of in the ninth. It describes the numerous monasteries built in a similar style to the King's palace, and adds, "The people cut their hair at seven years of age and enter a monastery. If at the age of twenty they have not grasped the doctrine, they become lay people again." That is very much what is done to this day. In this respect Burma may claim to be ahead of every other country in the world, as it has had free and universal education offered to its sons for over a thousand years.

Such civilisation as the races of Burma attained to is due, in a very large measure at least, to the introduction of Buddhism. However much they may have failed to "grasp the doctrine" fully, and however much they may have continued to mix up the old spirit worship with it, Buddhism at least set up higher ideals of thought and of right living among them. It widened their minds and enlarged their sympathies. It did not, any more than Christianity has done, stop wars or very greatly reduce their ruthlessness, but, to some extent at least, it did mitigate the sufferings of the poor and the oppressed. The monasteries were in some measure places of refuge as well as schools and the most ruthless kings could not altogether ignore the voice of the monks as these were highly venerated by the people. When and how Buddhism was introduced into Burma is very uncertain. Buddhaghosa is the reputed apostle of Buddhism to Burma, and Talaing historians claim him to be their fellow-countryman, stating that he crossed over to Ceylon in 402 A. D. and thence brought back to Thaton a complete set of the Tipitaka with its commentaries. But this does not tally with the references to Buddhaghosa in the Sinhalese records, and there are other reasons for not believing it. Apart from such reasons for disbelief as scholars may find in old writings, it is scarcely likely that a Talaing would go to Ceylon in 402 A. D. in search, apparently, of Buddhist scriptures, unless the Talaings were already interested in Buddhism. Almost from the first there was an active propaganda carried out by the Buddhist converts. Asoka's edicts inscribed on rocks and stone pillars, at places widely apart, prove that by the middle of the third century before Christ Buddhism was widely spread throughout India and even in adjacent countries. It is very improbable that its introduction into Burma was delayed until the fifth century after Christ. It probably was well established among the leading races by that time, but it is possible that the Talaing story about Buddhaghosa refers to an actual mission to Ceylon in search of more complete knowledge. The first missionaries may have come to Burma

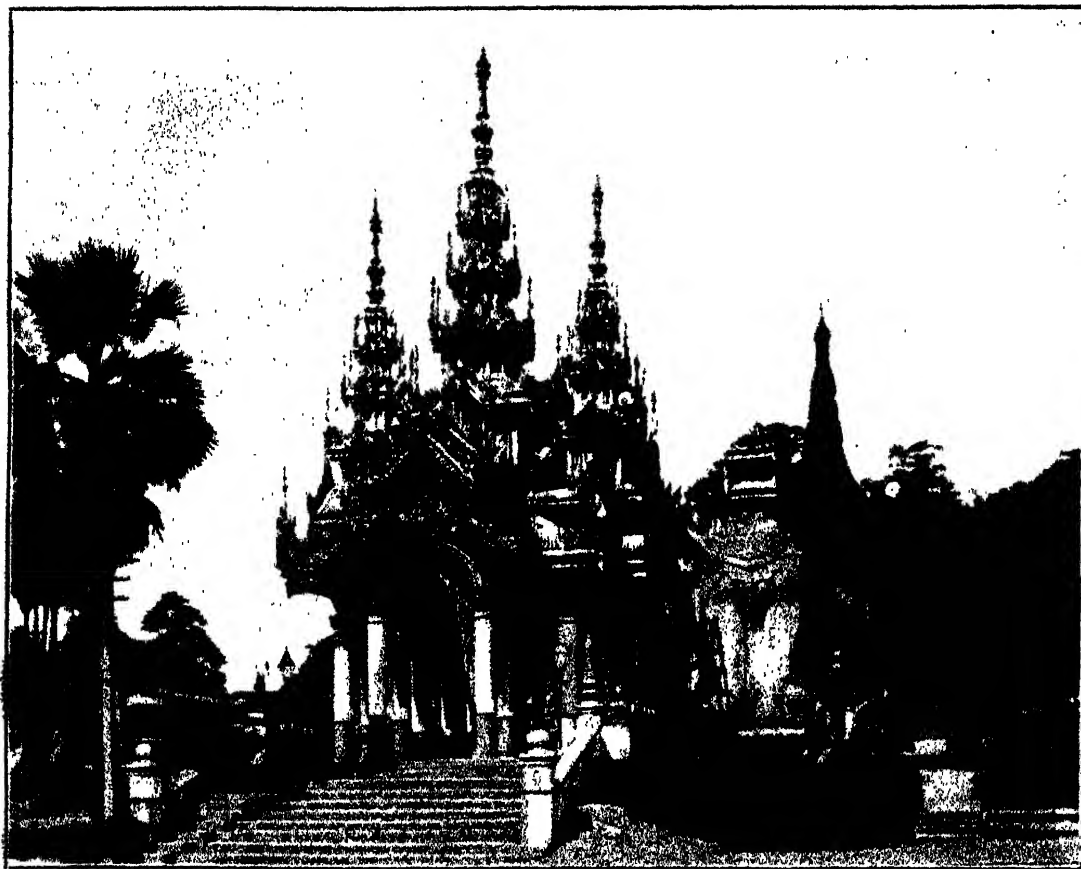
in Asoka's time or even before it. We cannot fix the date nor do we know anything of their early successes and failures. The Talaings, living on the sea-coast, almost certainly got their knowledge of Buddhism from Southern India and Ceylon. The Burmese, living further north and inland, may have got their knowledge from the Talaings, though they are unwilling to admit any such indebtedness to a people with whom they were constantly at war. It is possible that they obtained their knowledge from missionaries who travelled overland from India and so reached the Burmese without travelling through Talaing country; or the knowledge may have come from China. The whole subject, however, is very obscure. Mr. Taw Sein Ko, the Superintendent of the Archaeological Survey of Burma, who has had better opportunities than most to study the question, concludes in the following words an article he contributed to a Buddhist magazine.

"A history of Buddhism in Burma still remains to be written. The influences exerted by China, Tibet, Nipal, Magadha, Assam, Manipur and Cambodia on the one hand, have to be distinguished from those exerted by Southern India and Ceylon on the other. The intermixture of the Bön religion with the Tantric doctrines and Naga-worship, the evolution of Shamanism or Nat-worship, and the part played by Brahmanism, Saivism, Vaishnavism, and Jainism in the religious development of Burma have still to be described. Above all, the Talaing literature, which forms the connecting link between Ceylon and Burma Proper, still remains to be explored. At present, there is a lamentable dearth of scholars in Burma and Burmese history and Burmese literature, and Burmese antiquities are fields in which the labourers are exceedingly few, though the harvest should be plentiful and rich."

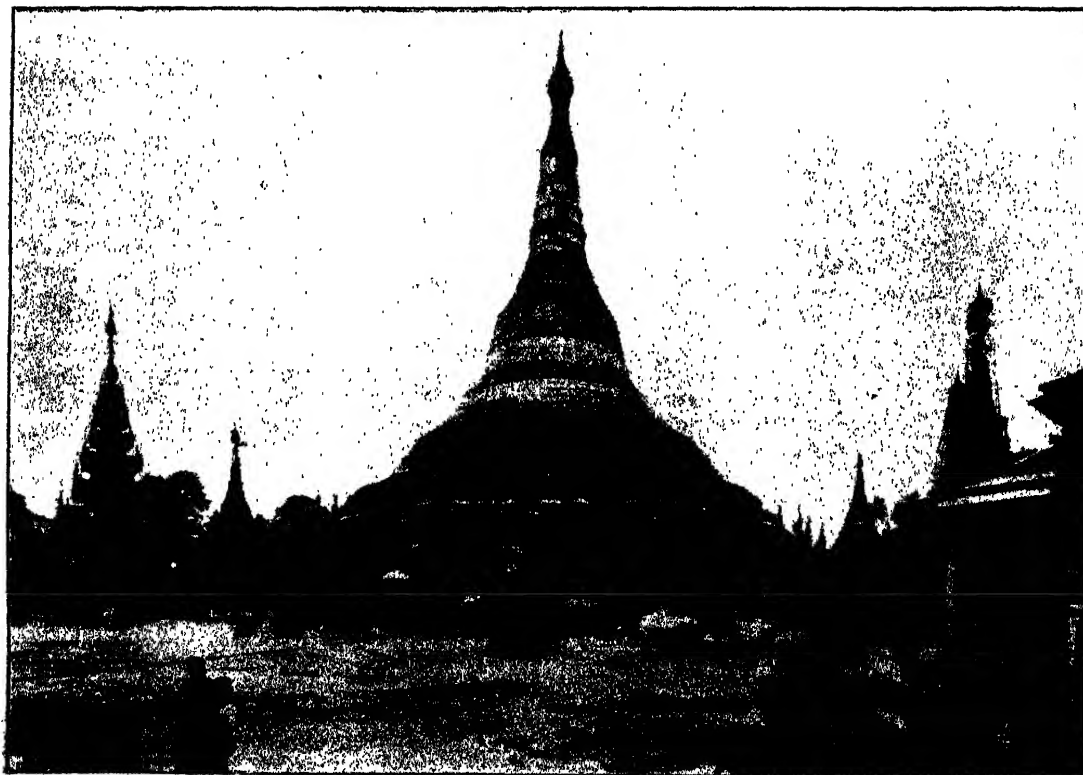
FROM THE DAWN OF HISTORY TO THE TIME OF ALOMPRA.

At the time when we first get to any really trustworthy history, we find that the struggle between the various races inhabiting Burma had been practically narrowed down into a triangular fight between three of them for the supremacy. These three races were the Shans, the Burmese and the Talaings. From the seventh century to the eighteenth these three races struggled against each other with varying fortunes, now one and now another getting the best of it, but without ever reaching any finality. Even the conquests of Alompra in the eighteenth century would not necessarily have proved final supremacy for the Burmese. The conquests of previous capable kings had disappeared under their feeble successors and Alompra's descendants were scarcely the men to keep what Alompra had won; but before the glamour inspired by Alompra's victories had died away, and before the other races had recovered fully from his ravages, the whole nature of the struggle was altered by the arrival of the British. When they first came, the Burmese race was still practically supreme in the country, but it must not be forgotten that it had only very recently become so and, quite possibly, might not have remained so.

To give a concise account of that struggle during a thousand years and more, between the three contending



ENTRANCE TO SHWE DAGON PAGODA, RANGOON.



SHWE DAGON PAGODA, RANGOON.

racess is impossible. The attempt could only end in confusion. It would be as perplexing as a combined history of Scotland, England and France for the centuries preceding the death of Queen Elizabeth. We shall arrive at a clearer idea of what did occur by taking each race separately, and it will be best to begin with the Shans. They are the most widely diffused race in Indo-China, and in Siam are still an independent power. They are more energetic than the Burmese and Talaings, and but for their tendency to split up into small States, would probably have become the dominant power in Burma. Though Shan chronicles have scarcely been studied at all as yet, a good deal of their history can be gleaned from Chinese annals. Of what is known of them Sir George Scott gives a full account in the *Upper Burma Gazetteer*, and it is from his account that the following brief summary is mainly derived.

There is no doubt that South-western China was the original home of the Tai or Shan race, or rather was the region where they attained to a marked separate development as a people. Burmese annals speak of invasions by "Tayóks" in very early times. In modern Burmese this name is applied to the Chinese, but these Tayóks could not have been Chinese, as the Chinese were shut off from contact with the Burmese until after the conquest of Yunnan by Kublai Khan in 1253 A. D. These Tayóks must have been Shans. The late Dr. Cushing is the only real authority on the Shans. He urges that the great homogeneity of the different divisions of the Tai race can be accounted for only by the existence of one or more strong Tai States in South-western China for a considerable time before the first historical notice of their Nan-chao Kingdom early in the seventh century. Dr. Cushing says that the first migrations of the Tai into Burma began about two thousand years ago, but, however this may be, it is not until much later that we have any authentic history. Shan chronicles refer to the Mao Kingdom as having begun in the seventh century of our era. Every thing points to this having been a kingdom of the Mao Shans who settled along the Shweli river. This kingdom maintained itself with varying degrees of prosperity until the rise of Anawra-hta, the Burmese king of Pagan, whom Mr. Parker considers the first definite king in Burmese history. This monarch gained ascendancy in much of the plain country, which up till then the Shans had held. Anawra-hta set out for China in quest of the Buddha's tooth, but probably never got further than Yunnan. On his return, Anawra-hta married a daughter of the Mao Shan king. Anawra-hta seems to have claimed the Mao king as a vassal, but the Shan chronicle denies any such vassalage. Whether there was any acknowledgment of vassalage or not, it is quite clear that when Anawra-hta's reign came to an end in 1052 A. D., the *Sawbwa* of the Mao kingdom remained independent. Nearly two centuries later the dominion of the Mao Shans was enormously extended. Hsö Hkan Hpa succeeded to the Mao throne in 1225 A. D. His suzerainty was acknowledged as far south as Moulmein, that is, far into the Talaing country; eastwards it extended to Keng Hung. His dominions were extended westwards by the over-running of Arakan, the destruction of its capital, and the invasion of Manipur. Assam was subjugated in

1229 A. D. and passed under the rule of the Shans, who were henceforth styled Ahom in that country. For nearly thirty years after the conquest of Yunnan by Kublai Khan, the Chinese hung about the frontier, and in 1284 A. D. a Mongolian force, we are told, swept down on the Burmese capital, Pagan, and overthrew the Burman monarchy. This expedition seems to have done no harm to the Mao kingdom through which it passed, the presumption therefore is that there was some agreement or alliance. The weakening of the power of Burma was favourable to the Mao kingdom, and it is claimed that the Mao territories were increased by the conquest of the Menam valley to Ayuthia and of Yunzalin and Tavoy. This we know was rather the commencement of the present kingdom of Siam than its conquest by an army of Mao Shans and conversion into an integral part of the Mao realm. We have seen that in the eleventh century the Burmese had driven the Shans back from the plains into the hills, but by the end of the thirteenth century the Shans had far more than recovered lost ground. They were then the dominant power not only in Burma, but beyond it. Their conquests had extended to Siam and though Kublai Khan had conquered Yunnan; they were still no doubt a power to be reckoned with in Western China. From this time onwards, however, the Shan power seems to have waned. Up to this period there is considerable correspondence in the details of the various Shan chronicles. Afterwards they diverge and become more local. It may be that up to the time of Kublai Khan's conquest of Yunnan some cohesion was due to the recognition by all of a dominant *Sawbwa* at Tali. When he was overthrown, the race split up into a number of unconnected principalities and has remained disunited ever since. The history of the next two centuries is somewhat obscure, but there can be no doubt about the steady decadence. The Siamese and Lao dependencies became a separate kingdom under the suzerainty of Ayuthia, the old capital of Siam. Wars with both China and Burma were frequent. The King of Pegu conquered the Mar territory in 1502 A. D. Subsequent Chinese invasions in 1582 and in 1604 A. D. put a final end to the Mao Shan dynasty. From that time onwards, though the various Shan States remained restive and rebellious, those in Burma were never able to completely throw off the Burmese yoke.

Turning now to the history of the Burmese there is no doubt that this race came originally from Tibet. The first capital of which there is any trace was Tagaung, but this existed in pre-historic times and little can be affirmed about it except that at some uncertain period there was a monarchy there, and the clay tablets still to be found on the spot show that Hindu influences were predominant. Whether it was founded by immigrants from India who gained an ascendancy over the Tibetans who had previously settled there is uncertain. Burmese tradition says that a Sakya chief named Abhi Raja came from Kapilavastu long before the birth of Gautama and built the city of Tagaung. Tradition probably antedates by centuries the coming of Indian settlers to the upper part of the Irrawaddy, but they did come in pre-historic times and exerted a considerable influence in moulding the Tibetan



THE QUEEN'S THRONE ROOM, MANDALAY.



THE CITY WALL AND MOAT, MANDALAY.

immigrants into the Burmese nation. Nothing very definite, however, is to be gleaned from the chronicles until we come to the reign of Thinka Yaza in the seventh century of the Christian era. This man had been a monk, but, on the death of the previous king, he threw off the yellow robe, married one of the queens of his predecessor and ascended the throne. It was he who established the era still in use among the Burmese. In connection with this Sir Arthur Phayre says:—"The common era which he established commenced in A. D. 639, on the day when the sun is supposed to enter the first sign of the Zodiac. This era is now observed in Burma. The reformation of the calendar was probably brought about by the assistance of Indian astronomers. The Burmese system of astronomy and method of computing time are essentially those of the Hindus."

The extracts from the T'ang history, which have already been quoted, show that in the ninth century the Burmese had attained to very much the same state of civilisation as they had in the nineteenth century. But though the boys all went into monasteries even in the ninth century, the Buddhism taught there had apparently become corrupt. Or, it may have been that dragon worship was drawing the people away from Buddhism. The Burmese chronicle says that at the end of the tenth century of the Christian era the whole country was devoted to this wicked superstition. In the year 1010 A. D., however, King Anawra-hta ascended the throne. He was capable and energetic and did much to bring the Burmese race into a position of supremacy. As we have already seen, he drove back the Shans from much of the plain country which they had previously held. He also waged war on the Talaings, marched to their capital Thaton, levelled that city to the ground and returned to his own capital Pagan, bringing with him a large number of captives, including the Talaing King. Anawra-hta had noticed the magnificent shrines at Thaton and it was with the view to raising similar buildings at Pagan that he brought so many captives. He laid the foundations of Pagan's greatness. Its ruins testify to this day that it must once have been a great city. The ruins cover an area of several square miles, crowded with shrines and temples of various sizes and in every stage of decay. It is a wonderful scene of desolation, in many ways the most striking spectacle in Burma and full of interest to the archæologist. Nor did Anawra-hta's religious zeal confine itself to temple building. He put down dragon worship with a firm hand and purified religion. The Talaing captives no doubt helped to introduce purer Buddhist doctrine, as well as to build more magnificent shrines than any the Burmese had been able to build before. Anawra-hta died in 1052 A.D. after a reign of 42 years. He was succeeded by his sons Saw Lu and Kyansitha, the latter of whom built the Ananda pagoda, the most noted temple in Pagan. The grandson of Anawra-hta named Alaung Sithu had also a long reign and, to some extent, emulated the exploits of his grandfather. He built two large temples near the Ananda pagoda at Pagan, and he sent an expedition into Arakan, a fact which shows that at that time the Pagan Kings had some authority over the greater part of Burma. This supremacy was kept for some time, but

in 1284 A. D., a Mongolian force swept down on Pagan and overthrew the monarchy. The reigning King is said to have provoked the Chinese by killing the Ambassadors sent to demand tribute. After the overthrow of Pagan by the Chinese the country to the north of it was parcelled out among a number of Shan chieftains while the Talaings and other conquered races in the south rose in rebellion and formed independent kingdoms of their own.

At the end of the thirteenth century, when the Shans were at the zenith of their power, the Burmese were altogether crushed for the time. Pagan was destroyed and no subsequent capital seems ever to have attained a magnificence at all equal to that of Pagan. The next capital was Sagaing where in 1315 A. D. Athin Khaya founded a Shan dynasty. In 1364 A. D., however, his grandson founded Ava which continued to be the Burmese capital up to 1593 A. D., when the kingdom was overthrown and there was no ruler for five years. In 1598 A. D., Nyaung-yan Mintaya, the son of the King of Taung-ngu, came to Ava, took over the government, and Ava continued to be the capital until quite recent times. Although the Burmese had a capital at first under Shan Kings from the beginning of the fourteenth century with one or two breaks right up to nearly the end of the nineteenth century, the extent of territory they ruled varied very greatly from time to time. Sometimes the King's authority extended only a little way from the capital, at other times it was felt throughout the greater part of the country. The history of the centuries that followed the overthrow of Pagan are a long record of struggle. At the beginning of the fourteenth century the Shans were the dominant power in Upper Burma, the Burmese being completely crushed for the time being. It took three centuries of ever-recurring conflict to reverse this position and it was not until Chinese invasions in 1582 and 1604 A. D. put a final end to the Mao Shan dynasty that the Burmese were able to reduce the Shan States to some sort of vassalage.

Throughout this period the struggle was not only with the Shans. Chinese invasions were not always restricted to Shan territory and there was plenty of fighting to be done elsewhere. Once the Burmese had begun to recover a little from the crushing defeat at the end of the thirteenth century, they began to remember Anawra-hta's subjugation of the Talaings in the eleventh century and to aspire to supremacy in that direction again. The Talaings had, of course, thrown off the Burmese yoke after the fall of Pagan, and a century later the Talaings were strong enough to fight the Burmese on fairly even terms. The new Talaing capital was at Pegu. For centuries the struggle was carried on, with comparatively brief interludes of peace. It would be wearisome to follow these interminable wars in detail. The Burmese invaded the Talaing country and the Talaings invaded Burma over and over again. Now one side was victorious and then the other, but the duel never came to an end. In 1752 A. D., however, a Talaing army invested Ava, captured it, burned the city, and carried off the King and other members of the royal family as captives to Pegu. This was just before the rise of Alompra who soon reversed the

position, but it is better to take the later history separately, as from Alompra's time it is possible to take the history of the country as a whole. The only point that need be added in the history of the period from the fall of Pagan in the thirteenth century to the fall of Ava in the eighteenth is that the Burmese during all that time had other foes to fight besides the Shans and the Talaings. Governors of provinces occasionally set up as independent kings on their own account. At times we hear of kings of Prome, of Taung-ngu and of Arakan, all of whom helped to make confusion worse confounded. The kings of Siam too interfered in the internal politics of Burma and stirred up one king against another.

inland. Although Anawra-hita conquered them in the eleventh century of the Christian era, they were clearly more advanced than their conquerors, more skilled in building and probably more learned in Buddhist doctrine. From the eleventh century to the end of the thirteenth they seem to have been kept in some sort of subjection by the Burmese, but after the fall of Pagan they regained their independence and in 1385, a capable king, named Rajadirit, ascended the throne of Pegu. He reigned for thirty-eight years, during which time he did much to consolidate the Talaing Kingdom, and in the intervals of fighting he beautified the new capital, Pegu. During his reign the wars with Burma were prosecuted with vigour, and he



TOWN HALL AND SULE PAGODA, RANGOON.

There remains only the history of the Talaings. According to Mr. Taw Sein Ko, this race belongs to the Mon-Khmer stock. They were, he thinks, the first immigrants and are now represented by the Talaings and Cambodians by the struggling and scattered tribes of Khasias in Assam and by the Palaungs and Was in the Northern Shan States. The Mon-Khmer appear to have entered Burma from north-eastern India, as it has left its congeners the Bhils and Gonds behind. Of their early history very little is known except that, owing probably to their being settled on the coast, Indian influences had been at work on them with more effect than on the Burmese

entered into friendly communication with the king of Siam. He also drove out the Burmese regent at the capital of Arakan, and a Talaing force occupied Sandoway. Unlike most eastern potentates Rajadirit kept his bodily activity to the last, and died from the effect of a wound received in hunting a wild elephant.

Indian Mahomedans are said to have taken part in some of the wars of the fifteenth century, fighting as a rule on the side of the Talaings, but it was not until 1538 A. D., that any Europeans are mentioned as siding in war with any of the contending kings. In that year the king of Taung-ngu was attacking Pegu, where there happened to be a Portuguese galliot, which

had been sent from Goa to trade in Pegu. The commander, Ferdinand de Morales, joined the Talaing flotilla in the battle which took place in the river but, in spite of his help, the Talaings were beaten.

According to Sir Arthur Phayre, however, the king of Taung-ngu was largely indebted for his success on this occasion to the desertion of their master by the leading officers of the king of Pegu. The latter was a foolish lad who had only recently succeeded to the throne. The kingdom of Taung-ngu was one of those small kingdoms which had sprung up in different parts of the country started in most cases by rebellious governors, but Taung-ngu had been the refuge of those Burmese who were dissatisfied with the Shan kings of Ava, and by the beginning of the sixteenth century the king of Taung-ngu was looked to as the refuge and hope of the Burmese race. He claimed descent from the kings of Pagan and his attack on the Talaings in Pegu was the first step in an ambitious project to regain the throne of Ava and supremacy in all Burma. He did get to the gates of Ava, but finding the confederacy of Shan chiefs too strong for him, he returned to Pegu. Afterwards he invaded Arakan, but returned hurriedly on hearing that the Siamese had attacked Tavoy. He then invaded Siam, but had to retreat. After this his character seems to have changed. A small body of Portuguese, probably employed as gunners, under the command of James Soarez, had accompanied him to Siam in 1548 A. D. The king made a companion of the nephew of Soarez and under this youth's influence became a confirmed drunkard.

The Portuguese had occupied Malacca under Albuquerque in 1511 A. D., and eight years later they concluded a commercial treaty with the Talaing king's viceroy at Martaban. After his conquest of Pegu the king of Taung-ngu called on this viceroy to submit to him, but trusting to the support the Portuguese could give him, the viceroy refused. In spite of Portuguese help, however, Martaban fell. Throughout the sixteenth century the number of Portuguese in Burma increased. They traded and they were always ready to take part in the various wars of the country. The story of Philip de Brito is a veritable romance. Originally a ship boy, he became a menial in the palace of the king of Arakan. Then he was sent to take charge of the custom house at Syriam. He got permission to build a custom house of brick, and then built a fort to protect the custom house. The next step was to expel the Arakanese governor and to take over his office. De Brito then went to Goa to seek authority to hold the town under the Portuguese viceroy there. Meanwhile Salvador Ribeyro was left in charge. During de Brito's absence the king of Arakan sent a large force to retake the town, but Ribeyro refused to surrender. To prevent his countrymen from escaping while suffering from hunger he burned the three ships he had in fort. At length relief was sent by the viceroy and the investing force withdrew. Ribeyro then set to work to conciliate the Talaings, who now offered to accept de Brito as king of Pegu. He, in the meantime, had married the viceroy's niece and returned to Syriam with the title of Captain-General. He had six ships with him, and proclaimed

his reception of the kingdom in the name of his sovereign. He put the fortifications in order, built a church, and marked out the limits of the city which might have become the capital of a great Province under the crown of Portugal. But de Brito took no pains to conciliate the native population. On the contrary, he outraged the feelings of both Burmese and Talaings by digging into the pagodas and seizing all the golden images and precious stones he could lay his hands on. He also forced great numbers of them to accept Christianity. At last, in 1613 A. D., a Burmese force besieged Syriam; a Talaing chief in the town opened one of the gates at night and de Brito was taken and impaled on a high stake before his own house. Many of the Portuguese were executed and the remainder, including de Brito's wife, were sent as slaves to Ava.

By the middle of the seventeenth century new troubles came on the Burmese and began to sap such ascendancy as they had gained throughout the country. Marauding bands of Chinese harassed the northern portion of it, and, aided by the Siamese, the Talaings began to make some headway in the south. By the year 1672 A. D., the king of Burma had recovered lost ground to a considerable extent, but in that year he died, and, under his incapable successors, the empire steadily decayed. About the year 1733 A. D., a Burmese army was defeated on the frontier of Manipur, and later on the Manipuris invaded Burma on more than one occasion. The Talaings, of course, were not slow to take advantage of the decay of the Burmese power. They first regained their independence, and after some years of fighting, were able to take Ava in 1752 A. D. They burned the city to the ground and carried off the Burmese King and other members of the royal family as captives to Pegu.

THE ALOMPRA DYNASTY.

The crushing defeat which the Burmese received at the hands of the Talaings in 1752 A. D., was soon reversed, not by any member of the Burmese royal house, or by any one in authority, but by an obscure individual of whose early history very little is known. Of course, all sorts of stories sprang up afterwards about royal descent and portents at his birth, but these may be dismissed as fabulous. He was certainly quite an obscure individual and, apparently, commenced life as a hunter, an occupation which is looked down on by the Burmese. At the time of the Talaing conquest, however, he seems to have obtained some subordinate position under a local official. He stood almost alone in refusing to swear allegiance to the Talaing king. A party of fifty men was sent to summon him to appear, but having secured forty followers he surprised the Talaing party and killed them all. This initial success increased his following, so when a larger party was sent against him, he was able to defeat them also. He went on from one success to another until in December 1753, that is, in less than two years from its conquest by the Talaings he was able to reconquer Ava. The Talaing king did not submit tamely to this and in the following year sent a force to retake it, but this also was effectually

ALARPUNGSAR

defeated. The upstart had meantime taken the name of "Alaungpayah" or "embryo Buddha," a name which has been corrupted by Europeans into Alompra. In 1755 he carried the war into the enemy's country. Without waiting to conquer the capital, Pegu, he moved down to the great Shwe Dagon Pagoda, drove away the Talaings and in May laid out the city of Rangoon which he designed to be the future port of his empire. The name he chose is eminently characteristic of the man. So confident was he of his ultimate success, that, though Pegu was still unsubdued, he named the new port, *Yangun*, which means "the termination of the war." Syriam had hitherto been the port, and here there were European traders, but Alompra being well aware of the assistance which might be derived from Europeans, gave orders that they were not to be molested. It was not until 1757 that Pegu was taken, given up to plunder and the buildings destroyed. The conquered king was taken away as a captive, numbers of the inhabitants were massacred, and thousands of men, women and children were sold as slaves. After this Alompra seems to have encountered no serious resistance, though there were some futile risings of the Talaings and some minor collisions with the Shans. In 1758 he marched into Manipur territory, nominally to settle a dispute about the succession there. When he arrived at the chief town, however, he found that the inhabitants had all fled to the mountains. Intoxicated by his rapid rise from obscurity to imperial power, he next decided to invade Siam. At first he was successful there also and managed to advance as far as the capital Ayuthia. The Siamese King, however, determined to hold out until the rise of the river should flood the camp of the besieger. Alompra was alive to this danger. He was unable to take Ayuthia, nor was he prepared to support his army for an indefinite time. He sent conciliatory messages saying that he had come, not to destroy the city, but as a Bodhisatwa to preach the law of holiness. He would subdue men's hearts by kindness as Gaudama Buddha had done. The Siamese ridiculed his pretensions and defied his power. At this juncture Alompra became very ill, so a retreat was



BURMESE LADY.



BURMESE PRIEST.

ordered. The retreating army was much harassed by the Siamese, and when half way to the Salween Alompra died. That was in May 1760 A.D. The body was conveyed to the capital and was burnt there with the rites of a Chakravarti or universal monarch. His career had certainly been a most remarkable one. In eight years he had risen from obscurity to a throne, and had brought his race from a crushing defeat to supremacy in the country. Had he been content with this and set himself to consolidate his power in Burma, his meteor-like rise might have had much more permanent effects than it had. He was only forty-six years old when he died, and, but for the ill-advised expedition to Siam, might perhaps have lived for many years longer. As it was, he left an example to his successors of over-vaulting ambition and extravagant pretensions which led to their

downfall. His successors had these faults in full measure, but in most instances conspicuously lacked Alompra's ability, though in 1767 A. D., a Burmese army did take and destroy the capital of Siam, and in the following year a Chinese invasion of Burma was driven back. The Chinese invasions, for there were several of them, may not have been the fault of the Alompra dynasty, but the invasions of Siam, of Manipur and other aggressions were unnecessary. We may, perhaps, except that of

Arakan, which had been a part of Burma in former times, but had regained independence and had not been subdued by Alompra. That was subdued by the Burmese without much trouble in 1784 A.D. But the consequences of the conquest of Arakan were disastrous in one way, for it brought the Burmese kings into direct collision with the British power in India. The cruel oppression of the Burmese drove many of the Arakanese to settle in British territory across the border. Among them were three chiefs who had long resisted the Burmese. In 1794 A.D., a Burmese force crossed into British territory to demand the surrender of these three chiefs who were given up as fugitive criminals. The British Indian Government was most anxious to avoid any serious conflict with Burma, having quite enough to do in India. But the infatuation of the Alompra dynasty

left no option. British envoys were treated with studious discourtesy at the Burmese court, and before the end of the eighteenth century a Burmese military force again marched into Chittagong to compel the return of fugitive Arakanese. Nor was this the last of such aggressions. According to Sir Arthur Phayre, by 1813 A. D., the king of Burma was "actively engaged in intrigues with some of the native princes of India. The direct object of these secret negotiations did not appear until later. The conquest of Arakan had brought Burmese officers into more immediate contact with India than at any previous period, and the ambitious king was inspired with the desire of acquiring the districts of Eastern Bengal, at least as far as Dacca which had once belonged to Arakan. Even a claim to Murshidabad was some years afterwards openly made."

There was constant aggression on the part of the Burmese at different parts of the frontier and various petty skirmishes had taken place between British Indian and Burmese troops. But early in 1824 A. D., an army of six thousand men was sent under Bandula with orders to advance on Chittagong. The British Government had stationed a brigade at Chittagong, but it was much too weak for the work required. The first encounter took place between a detachment under Captain Norton of the 40th Bengal Native Infantry and about four thousand Burmese troops. Captain Norton had only three hundred and fifty regulars with six hundred and fifty of the police battalion and a levy of Arakanese refugees. The Burmese attacked and drove the British force from its position. To penetrate to the capital of Burma overland from Chittagong would have been a very difficult, if not an impossible, task, so war having been declared, troops were sent by sea to Rangoon so as to penetrate the country by the Irrawaddy valley. Rangoon was occupied on the 11th of May 1824, but it was not until 24th February 1826 that the treaty of peace was signed. The terms were that the Burmese were to pay one million sterling towards the expenses of the war; were to abstain from all interference in future in Manipur and elsewhere beyond their boundaries on the Indian side; and were

to cede Assam, Arakan, and the coast of Tenasserim to the British.

After such a lesson as this, one would have thought that even the Alompra dynasty would have learned to curb their arrogant pretensions and to keep up the appearance at least of civility to the British. But after the lapse of a few years the old story began to repeat itself. British envoys to the Burmese kings were treated with discourtesy; acts of violence were committed on British ships and British seamen. A series of negotiations followed; nothing was demanded beyond a very moderate compensation for the injuries inflicted on the masters of two British vessels, an apology for the insults offered by the Governor of

Rangoon to the representative of the British Government and the re-establishment of the appearance at least of friendly relations by the reception of a British Agent by the Burmese Government. But it was all useless. The king would do nothing. The result was the Second Burmese War, the first shot in which was fired in January 1852. By the end of that year the whole province of Pegu was annexed to the British dominions. No treaty was obtained, but the Burmese king was warned that any active demonstration of hostility on his part would be followed by retribution.

By the end of 1853 King Mindon ascended the throne, and, though he absolutely refused to acknowledge the loss of Pegu by a formal treaty, he was wise enough to abstain from any overt act of

hostility. During his reign there was little trouble. He founded the new capital, Mandalay.

Compared to most of his predecessors, he was a fairly good king, ruled his own territory fairly well according to his lights, and was, on the whole, rather friendly to Europeans. Even under his comparatively benign rule, however, numbers of his subjects escaped when they could and settled in British Burma to escape the tyranny and extortions of his officials. The men could come without hindrance, and did so in numbers every year in search of work, but it was not so easy to get their families across the frontier, as when a man left the king's dominions his wife and children were expected to remain as hostages for his return. King



KING THERBAW AND QUEEN SOOPVALAT.

Mindón died in 1878, and, by a Palace intrigue, Thibaw was put upon the throne. He was a lad of twenty which was probably his main recommendation in the eyes of the Queen and the Minister who engineered the plot for his accession. They did not want a child, as that would have involved the appointment of a regent; nor did they want a fully grown man who would have taken the power into his own hands, but a lad of twenty could probably be managed for some years to come, especially as he was in love with the Queen's daughter Soopyalat. Of all King Mindón's numerous sons, he seemed the most unlikely to succeed, as his mother had been convicted of infidelity, and had been expelled from the palace in 1864. The plot succeeded, but if the object of it was to keep power in the hands of the intriguing Queen and Minister, that object was not attained. King Thibaw might perhaps have been managed. In point of fact he was, but not by the Queen and Minister. Soopyalat very soon took that into her own hands and practically ruled the country. Their joint reign commenced with more than usually cold-blooded massacres of the royal family, so as to effectually remove any possible competitors for the throne. By 1879 the British Envoy had to leave the capital. Thibaw lent himself more

and more to foreign intrigues, and in the summer of 1885 matters came to a crisis over a dispute with the Bombay Burma Trading Company, on whom an impossible fine was imposed with the threat of confiscation of all their rights and property if the fine was not paid. The ultimate result was the Third Burmese War, in which, however, there was very little fighting. Within a fortnight of the declaration of war, the capital had fallen and the King and Queen were prisoners. That was on 28th November 1885. A far harder task than the actual war itself was the pacification of the country after the annexation. Ever since Mindón's death lawlessness had been growing steadily, and in every direction there were dacoit bands to be hunted down before anything like security of life and property could be given to the unfortunate villagers. It took some years to accomplish this, but it was done, and since it has been accomplished, many of the old immigrants to British Burma have returned to their old homes in Upper Burma, now that peace and security reign there also. The attraction is simply love of the old home, for, owing to the deficient rainfall in Upper Burma, the cultivator's lot there is still much harder and more precarious than in the delta with its abundant rainfall.



The Survey of India.



THE SURVEYOR-GENERAL'S OFFICE, CALCUTTA.
Frontal View of Main Building.

THE Great Trigonometrical Survey of India was commenced in the early days of the last century, and it has now extended its network of triangles over the whole of India. Its operations in the measurement of an arc of the meridian, and in affording data for determining the figure of the earth, have possessed the highest scientific value, and have served as the basis of innumerable useful undertakings. On it has been founded the Topographical Survey, which delineates the geographical features of the country, and the Revenue or Cadastral Survey, which provides maps of villages and estates and demarcates them with permanent boundary marks. In 1878 the three branches were amalgamated under the designation of the Survey of India, whose officers were to be available for any description of survey work that might be required of them, and were all placed under the orders of the Surveyor-General.

Previous to the commencement of the great Trigonometrical Survey, considerable progress had already been made in knowledge of the geography of the peninsula, and in connexion therewith two names stand out as identified with the production of the earliest known maps of the country. These are Jean Baptiste Bourguignon D'Anville, the eminent French geographer who lived from 1697 to 1782; and Major James Rennell, whose labours in the survey-field extended over a period of thirteen years only, *i.e.*, from 1764 to 1777, in which year he resigned the service and returned to England with a scheme for the utilization of the large mass of geographical material then laid up and "perishing in the India House." But nearly one hundred years before the first of these early geographers was born the Emperor Akbar had, under his own direction and that of his able and enlightened minister, Abul Fazl, carried out

a complete survey of his empire, the results of which were recorded in the *Ain-i-Akbari*, which also comprised a full account of everything connected with his dominions, government, and occupations, from the highest affairs of State down to the training and feeding of hawks. The statistical details, describing the extent and productions of the different provinces, were of the greatest value, and were collected chiefly for revenue purposes, in which respect Akbar relieved the people from a great part of the taxes levied from them by his predecessors. The land survey and the mapping of British India have, of course, advanced with the acquisition of territory, but to appreciate the value of the work that has been brought to its present state of perfection by the Survey of India, it is necessary to understand something of the conditions under which the pioneers in the field of Indian geography laboured. To D'Anville is due the credit for the earliest map of modern India; he compressed into that form all the available knowledge of the time, but the work that he did for Indian geography appears to have escaped notice in the larger field of his activities, for in several of his biographies no allusion whatever is made to it. In his system of work, books professedly geographical formed the least portion of D'Anville's studies, while those of all the ancient and modern historians, travellers, narrators of every description, were assiduously examined. He studied also the philosophers, orators, and poets, but only for the sake of the occasional geographical lights which they afforded; for it was remarked that in perusing these works he was totally indifferent to everything which did not tend to fix a geographical position. His life-work extended over a vast field, and, so far as India was concerned, his information was derived from the routes of early travellers, rough coast charts and records of work done by certain Lamas between China and Tibet and around the sources of the Ganges. D'Anville's Map was published in 1752, and twelve years later Major James Rennell was at work in the newly-acquired territory of Bengal and Behar, laying the foundation for the construction of a map destined to follow the admirable work of D'Anville. Rennell was a Devonshire man, born in 1742, who began life as a midshipman in the Royal Navy; later took service in the Army under Clive, in which he rose to the rank

of Major; and eventually became Surveyor-General of Bengal. Rennell while in the Navy appears to have been a particularly keen and zealous officer, and when he was not engaged in actual fighting, he devoted his time to topographical work. It is not known what first turned the lad's attention to surveying, but his letters show that he came out to India provided with useful books and instruments, and they contain from time to time notes on various surveys carried out by him. In 1762 he left the Navy and joined the East India Company's service, and went, apparently as a surveyor, on board a Company's vessel which was despatched on a reconnaissance to Manila and the neighbouring islands. He subsequently obtained command of a Company's ship, and later on he made surveys of the coast about Cape Calymere and of the

Paumben Passage. In 1764 he arrived in Calcutta, and through the interest of the Governor of the Presidency, Henry Vansittart, he obtained an appointment as "Surveyor of the East India Company's dominions in Bengal," and on the same day that this appointment was gazetted, 9th April, 1764, he received his commission as Ensign in the Bengal Engineers. In 1767 his position was raised to that of Surveyor-General, and at the same time he was promoted to Captain. In their letter to the Court of Directors, reporting this promotion, the Council at Fort William say:—"We have appointed Captain Rennell, a young man of distinguished merit in this branch, Surveyor-General, and directed him to form one general chart from those already made, and such as are now on hand, as they can be collected in. This, though attended with great labour,

does not prevent him prosecuting his own surveys." Practically, though he was sometimes engaged in works of construction or demolition, Rennell's work as a surveyor occupied the whole of his Indian service, and in the course of this employment he reduced to order and substantial accuracy the map of Bengal, and accumulated a great part of the material which he afterwards utilised in the determination of all the important points embraced in the first approximately correct map of India. His merits were highly appreciated and his rise was rapid. In 1775 he attained the rank of Major, and two years later he resigned the service. His survey covered an area about 900 miles long and 240 miles in breadth, and extended from the eastern confines of Bengal to Agra, and from the



Major JAMES RENNELL.

The most famous of the early English Geographers.
Born 1742, Surveyor-General, Bengal, 1767-1777. Died 1810.
Buried in Westminster Abbey.

foot of the Himalayas to Culpee. The distances appear to have been chained, and observations were taken for latitude and longitude at certain stations.

Rennell went home in 1778, and there he devoted himself to the literary elucidation of geography. His great work on Indian geography was the *Memoir of a Map of Hindustan*, in which he attempted to reconcile a vast array of very conflicting geographical data. Previous to this, however, he had, among other publications, brought out his *Bengal Atlas*, which contained 21 maps and was a work which left far behind everything in Indian cartography published up to that date (1781). His *Memoir* was of gradual growth, and underwent five developments; published in its first form in 1783, it did not attain its final dimensions until ten years later. In his Preface to the last edition Rennell says:—"Considering the vast extent of India, and how little its interior parts have been visited by Europeans till the latter part of the last century, it ought rather to surprise us that so much geographical matter should have been collected in so short a period; especially where so little has been contributed towards it by the natives themselves, as in the present case." It was D'Anville who first set the example of accompanying the map with a memoir exhibiting the data on which it had been constructed, and his lead was followed by Rennell and many of the earlier Indian geographers.

Rennell was succeeded by Colonel John Call, who had already made some route surveys of the southern part of the Peninsula. The following years saw much good geographical work done by disciples of Rennell. Colonel Pearse had been engaged in making astronomical observations at Calcutta from about 1774 to 1782, and in the latter year he undertook a journey to Madras for the purpose of fixing positions and laying down the intermediate coast line for a distance of 700 miles. This work occupied two years, and Pearse was ably assisted by Colebrooke, the future Surveyor-General of India. During this period intelligent surveyors accompanied every army in the field, and good route-maps were thus obtained. In 1783 Colonel Kelly was reported to have made a most valuable collection of routes and maps of the Carnatic during a long course of service. Colonel Pringle also made maps, and measured 2,000 miles of road in the Carnatic during the war with Hyder Ali. Thus, material was rapidly accumulating, and Colonel Call, the Surveyor-General, undertook the compilation of an Atlas of India in 20 sheets, to be embodied later into one general map on a smaller scale. In 1787, when Colonel Call was compiling this map, he found so many contradictions and absurdities in the various surveys that he requested Mr. Reuben Burrow, an experienced marine surveyor and an accomplished mathematician, to consider the subject and draw up a plan for determining astronomically the position of the various stations in Bengal. Eventually Burrow received orders from Colonel Wood, who had meanwhile succeeded Colonel Call as Surveyor-General, to determine the latitude and longitude of Murshidabad, Rajmahal, Monghyr, Patna, Dacca, Goalpara and Chittagong. We are told that the difficulty in procuring the necessary instruments and equipment for this

Government expedition could only be overcome by borrowing a sextant here, a watch there, and a quadrant in another quarter, from different officers in Calcutta who happened to possess them. Burrow also went up the Ganges as far as Hardwar, taking observations and making careful notes of everything he saw.

When Colonel Wood took up the Surveyor-Generalship he was strongly impressed with the importance of making the marches of troops serve the promotion of geographical knowledge, and he actively collected material and information for the making of correct maps wherever they were to be thus obtained. In 1792 he received the surveys of Lieutenant Emmett of portions of the Deccan, and in the following year his assistant, Lieutenant Colebrooke, submitted a map of that part of Mysore traversed by the army under Lord Cornwallis. In the same year Major Kyd surveyed the route from Seringapatam, through Coorg, to the West Coast, and Dr. Hunter, the Surgeon to the Residency at Sindhia's Court, sent in route surveys made on marches from Delhi and Agra to Gwalior and Oojein. A map of Calcutta and its environs was made by Mr. Upjohn in 1794, and in 1795 Lieutenant Hoare received instructions to make a survey of the river Jumna. When Captain Symes went on a mission to the Court of Ava in 1795, he was accompanied by Dr. Buchanan and Lieutenant Wood. The latter surveyed the route, and later on submitted a map of the Irrawaddy from Rangoon to Amarapoora. On the Bombay side Captain Moncrieff surveyed the district of Canara in 1799, and Colonel Charles Reynolds made a careful route survey of Malwa and part of Bednore. Much of this early work was of course very inaccurate, and maps of that period were only of service when India was an almost unknown region, to be traversed by armies, and they ceased to be of practical use when the country became a British Imperial possession, requiring to be administered.

At the commencement of the nineteenth century the great triangulation was begun, which was to furnish a permanent geodetical basis of the highest order of accuracy for all future surveying operations in India. The process of constructing maps from route surveys and astronomical observations was gradually discontinued. At that time it had only recently been acknowledged that a trigonometrical survey was the only accurate basis for mapping a country. The man who organised the great Indian Survey was an Infantry officer serving in the army of General Harris in the war with Tippu Sultan. His name was William Lambton, and he was well acquainted with the methods of observing and computing which were in use among the learned men who had but recently been engaged in the measurement of arcs in Europe. After the fall of Tippu Sultan, Lord Wellesley took measures for exploring and collecting information respecting the vast territory which had thus been thrown open to the British. Dr. Buchanan was employed to report upon the agriculture and products of Mysore and Malabar; Colin Mackenzie proceeded with his topographical surveys and memoirs; and it was then also that Major Lambton submitted his project for the measurement

of an arc of the meridian, and for a trigonometrical survey across the Peninsula. Lambton's proposals were supported by Sir Arthur Wellesley and approved of by the Madras Government, and Lambton himself was appointed to conduct the measurement, but it was not until 1802 that he was furnished with the necessary instruments to proceed with his project. Meanwhile he organised an efficient staff; but from the first the staff of the great trigonometrical survey was distinct from those of the topographical and revenue surveys. By the trigonometrical survey a network of primary triangles was formed, with numerous fixed positions. By the topographical and revenue surveys the details were filled in, and the data for the map collected; so that the nature of the work, the training, and the objects were distinct. Lambton's instruments, we are told, were a theodolite, zenith sector, and steel chain. The 3-foot theodolite, by Cary, was captured on the passage to India by the French frigate "Piemontaise" and landed at Mauritius, but it was eventually forwarded to its destination by the French Governor, De Caen, with a complimentary letter to the Governor of Madras. The zenith sector was one of 5 feet radius, by Ramsden, and the chain was one that had been sent as a present to the Emperor of China with Lord Macartney's Embassy, and refused. It was handed over to Mr. Dinwiddie, the astronomer to the Mission, apparently in part payment for his services. He brought it to Madras, together with the zenith sector, and both were purchased by the Government for Lambton's survey.

Lambton started his survey in 1800 by measuring a base line at Bangalore. This was subsequently rejected, and the actual work of the great trigonometrical survey of India was commenced on the 10th April, 1802, by the measurement of a base line near Madras, and the ground selected by Major Lambton for this operation was a flat plain, nearly eight miles long, with St. Thomas' Mount near its northern end, and Perumbauk Hill near its southern extremity. The base line was $7\frac{1}{2}$ miles in length, and the measurement was completed on the 22nd May, when observations were taken to determine the angle of the base with the meridian. From the base line Lambton, by means of triangulation, then proceeded to measure an arc of the meridian, and the length of a degree at right angles with the meridian in the neighbourhood of Madras. The measurement of an arc was, in a scientific point of view,

of the highest importance. The measured base line the series of accurately-measured triangles and points, fixed by numerous astronomical observations, all of which, are necessary for determining the shape of the earth were the bases from which, as a back-bone, the triangulation was to be extended over the whole of India. The primary triangles formed guides by which the topographical and revenue surveyors were enabled to fill in the details and delineate all the main features of the country within fixed limits of error. From the Madras base line a series of triangles was carried up to the Mysore plateau, and a second base was measured near Bangalore, in 1804, by Lieutenant Warren, as a datum for extending the triangles to the Malabar Coast; and as a base of verification for the triangles brought from the Madras base. Lieutenant Kater was

despatched to select stations in the mountains of Coorg and Bednore. A series of triangles in two degrees of latitude was then carried across the Peninsula, and having connected the two sides, the series was next carried down from the Bangalore base line towards Cape Comorin, and a new base line was measured at Coimbatore in 1806. In 1808 a base line was measured at Tanjore, and triangles were formed connecting Tanjore with Nagor and Negapatam. A base line was measured at Tinnevely in the following year, and primary triangles extended thence to the sea-shore at Punnae, eight miles North-East of Cape Comorin. These measurements were known as "The Great Arc Series," and in addition to these another series of triangulations was carried across the country from Negapatam to Ponany and Calicut, and

yet another round the coast from Rameswaram, through Travancore and Cochin to Calicut. The arc series was thus completed from Cape Comorin to Bangalore by 1811, when Lambton turned his attention to its extension northwards in the direction of the Himalayas.

From the 1st January, 1818, the Trigonometrical Survey, which had up to that time been under the Madras Government, was transferred to the immediate control of the Governor-General, who ordered it to be called for the future "The Great Trigonometrical Survey of India." Captain Everest was appointed chief assistant to Major Lambton, who was at that time gradually wasting away, owing to the hardships he had undergone in the field, and June, 1819, was the last occasion on which he actually took part in the work



Colonel W. LAMBTON, F.R.S.

First Supdt. of The Great Trigonometrical Survey, 1800—23.

of triangulation, although he still continued to work at the zenith distances of stars. He began once more to push on the Great Arc Series, and measured a base line at Takalkhera in the valley of Berar in the winter of 1822. Meanwhile, Everest had been detached to bring up a series of triangles connecting Bombay with the Great Arc Series. In January, 1823, Lambton set out from Hyderabad for Nagpore, but died on the way at Hinganghat, on the 20th January, 1823 at the advanced age of seventy years. Up to the time of his death he had completed the triangulation of 165,342 square miles at a cost of £83,537. His series of triangles along the Parallel 13 degrees N., from Mangalore to Madras, was the first attempt at a longitudinal Arc, and by its means he detected an error of 40 miles in the breadth of that part of the Peninsula, as laid down in previous maps, and also discovered inaccuracies in the given positions of the chief towns.

Major Lambton was succeeded by Captain (afterwards Sir) George Everest, who had been Lambton's chief assistant for upwards of five years. At the time of his chief's death he was engaged on the Bombay Longitudinal Series, and on assuming charge he found the most advanced work to be the base line measured by Lambton at Takalkhera, but triangulation had not been extended to that point. Here Everest commenced operations in November, 1823. He now had to take the Meridional Arc Series across the Satpura hills which bound the valley of Berar to the north. He carried triangulation across the hills as far as the plain of Sironj, where a base line was measured in November, 1824. Everest then went home on sick leave from 1825 to 1830, and during this time he was fully occupied in studying the newest improvements and superintending the construction of instruments on the most approved plans. Meanwhile, in India, a Longitudinal Series of triangles was extended from the Sironj base to Calcutta, over nearly 700 miles of difficult and unknown country, and these operations were carried out under the superintendence of Mr. Joseph Olliver. Everest returned to India in 1830, provided with the best instruments procurable, including a large theodolite with an azimuth circle 36 inches in diameter, by Troughton, and two double vertical circles, 3 feet in diameter, by Troughton and Simms. But the most important improvement introduced into the survey by Everest, at this time was the measurement of bases by compensation bars in place of the old

inaccurate method by chains. Of these compensation bars he brought out six sets. On his return Everest took up the combined appointment of Surveyor-General and Superintendent of the Great Trigonometrical Survey of India. He found that Olliver had nearly completed the Calcutta Longitudinal Series, which originates at Kalianpore and terminates at Fort William. Everest determined to measure a base line of verification for the series, and this experiment is interesting as having been the first base lines measured in India by means of compensation bars. Mr. Taylor, Astronomer of the Madras Observatory, was deputed to Calcutta to assist Everest in this measurement. In 1832 Everest resumed work in connexion with the Meridional Arc Series, which had hitherto been conducted over the elevated plateau of the Deccan, where numerous rocky

heights afforded excellent sites for stations; but in the extension of the triangulations beyond the Sironj base very difficult country was encountered. At this time Everest was supported by several most able and zealous assistants; among others were Andrew Waugh, his future successor, and Renny, who joined the survey in that year; Olliver and Rossenride had already been in training for some years. After the completion of some very tedious preliminaries, the great work of measuring the most northerly base for the Great Arc Series was commenced at the end of 1834, the region selected for the measurement being the Dehra Dun. On March 28th, 1835, the work of measuring was completed, and by February, 1837, the two survey parties in the field which were working under Colonel Everest and Andrew Waugh, respectively, had connected



SIR GEORGE EVEREST, K.C.B., R.A.,
Surveyor-General, 1830 to 1843. Died 1866.

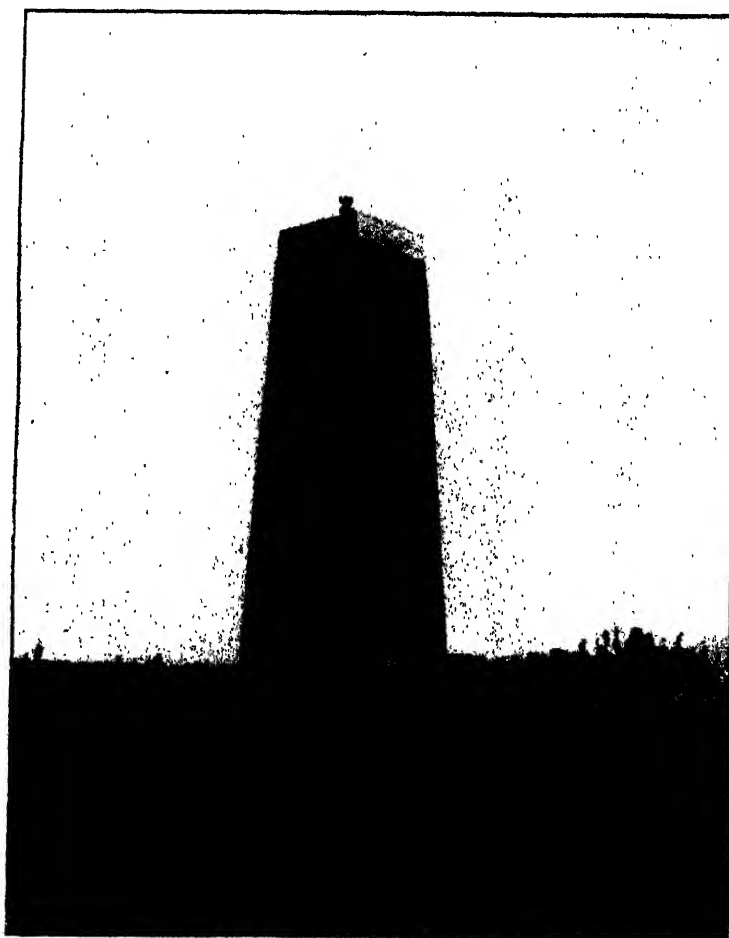
the Dehra Dun base with that measured on the Sironj plain near Kalianpore in 1824. Everest likewise completed the Bombay Longitudinal Series, and designed and partly carried out a scheme for covering Bengal and Behar with a gridiron of triangles. A complete revision of the famous old survey by Major Rennell was also designed by Everest, and for this purpose he originated several Meridional Series from the Calcutta Longitudinal Series, to terminate at the foot of the Himalayas, and eventually to be connected by another Longitudinal Series along the base of the mountains. This is the gridiron system, in contradistinction to Lambton's network system of triangles. Everest retired in 1843, having completed one of the most stupendous works in the history of science in his measurement of

the Meridional Arc of India, 11½ degrees in length. In great part the Indian Survey to-day is what he made it. He entirely altered and revolutionised the old system of Lambton by substituting the gridiron for the network system; he introduced the compensation bars, which have since measured every base in India; he invented the plan of observing by heliograph flashes and the system of ray tracing, and although there have been modifications and improvements since his time, nearly everything in the surveys was originated by Everest.

Sir George Everest was succeeded by Colonel Andrew Waugh, whose first work was to complete Everest's project for the triangulation of the important region between the Great Arc Series and Calcutta, including the North-West Provinces and Bengal. Then came the North-Eastern Himalayan Series, which connects the northern ends of all the Meridional Series, and the dangers and difficulties encountered in these operations were great. This memorable series was commenced in 1845 and finished in 1850, and was at that time the longest series between measured bases in the world, being 1,690 miles long from the Dehra Dun base to that of Sonakhoda, in Purnea. It was while the main chain of this series was in progress that the correct heights of the major Himalayan peaks were determined. The highest of the Himalayan peaks were visible from the principal trigonometrical stations of this series, and were fixed by measurement with the great theodolite. The heights of 79 peaks were fixed, and the highest of them all, 29,002 feet above sea-level, was named by Colonel Waugh, in tribute to his old chief, Mount Everest. The North-East Himalaya Series covered an area of 15,826 square miles, exclusive of the operations of the mountain-peaks in Sikkim which covered 73,920, or a total area of 89,746 square miles.

Colonel Waugh next conceived a project for forming a gridiron of triangulation to the westward of the Great Arc Series, including all the then newly-acquired territory in Scinde and the Punjab. Colonel Waugh's plan commenced with the Great Arc Series, having the Dehra Dun base at the north, and the Sironj base at the south end. From the Dehra base a North-West Himalaya Series was to be extended to near Attock, where a new base was to be measured; while from the Sironj base the line of the Calcutta Longitudinal Series was to be extended to Karachi, to be called the Great Longitudinal

Series (Western Section). At Karachi another base was to be measured, and a Great Indus Series was to form the western side of the quadrilateral. Finally, a set of intermediate Meridional Series was to complete the gridiron. Work was commenced in 1847, with the Longitudinal Series from the two bases at Dehra Dun and Sironj, and the whole project was nearing completion when Colonel Waugh retired from the service in 1861. Previous to this, however, on the completion of the measurement of the Karachi base, the survey of Cashmere and the mountains up to the Tibetan Frontier was taken in hand in 1855, under the superintendence of Captain Montgomerie, who commenced work in the spring of that year with a 14-inch theodolite. The Cashmere Series originates from that of the



THE NAGLI OBSERVATION TOWER.

Erected for the purpose of the Great Trigonometrical Survey of India.

North-West Himalaya between Sialkot and Gurdaspore, and during the first season it was taken across the Pir Panjal range into Cashmere. Two of the stations were 13,000 and 15,000 feet above the sea. Building materials had to be dug out of the snow for the station pillars, and the observers were detained at one station for 22 days, owing to the storms of snow and the foggy weather. Afterwards, as the party penetrated into the mountains, the height of the stations averaged 17,000 feet, and luminous signals were used from peaks 19,000 and even 20,000 feet

above the sea. Between 1855 and 1861 the triangulation was extended over 93,500 square miles. This most difficult and laborious survey is remarkable for its accuracy; and in a circuit of 890 miles, only a discrepancy of eight-tenths of a second in latitude and of one-tenth of a second in longitude was found. In the Cashmere Series the topographical filling in by plane table advanced with the triangulation, both being under Captain Montgomerie.

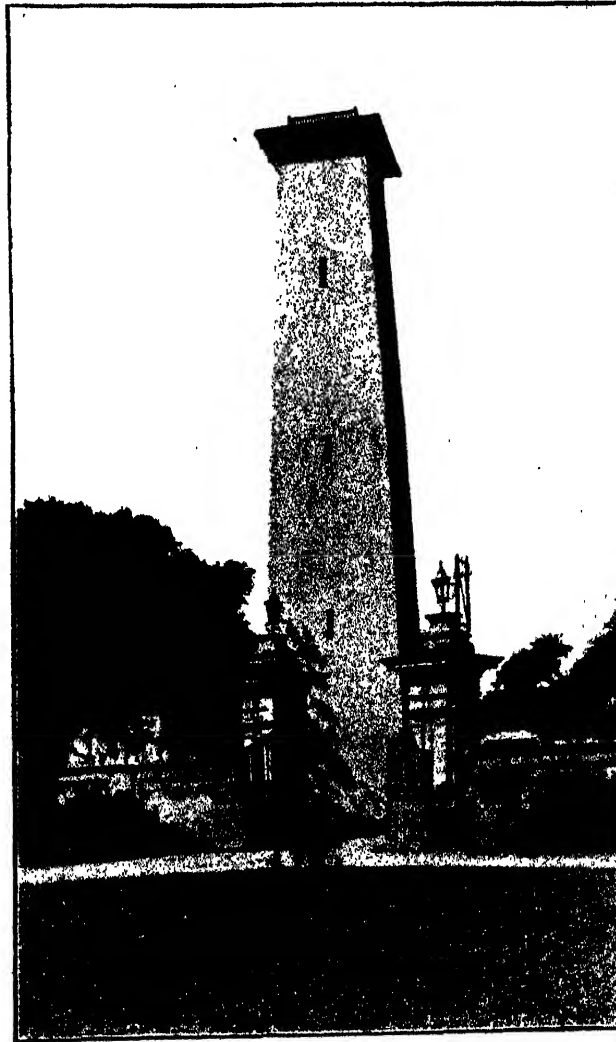
Colonel Waugh became a Major-General, and was knighted in 1861, in which year he retired from the service. He had pushed forward the great work with such ability and energy that his successor could see his way to its completion within a specified number of years. On the retirement of Sir Andrew Waugh, the two offices of Surveyor-General and Superintendent of the Great Trigonometrical Survey were once more separated, Colonel Thuillier becoming Surveyor-General, while Colonel Walker was appointed Superintendent of the Survey in March, 1861. Colonel Walker's first work was the completion of the Great North-Western Gridiron, and the execution of sixteen principal series of the gridiron, and the complete revision of the Great Arc, practically brought the main triangulation of India proper to a close. The whole of this triangulation rests on ten base lines, of which five are in the Great Arc Series and the others at Karachi, Attock, Sonakhoda, Calcutta, and Vizagapatam. Under the guidance of Colonel Walker the Vizagapatam, Bangalore and Cape Comorin base lines were remeasured, while portions of the Great Arc and of the Calcutta-Karachi Longitudinal Arc were revised. Colonel Walker was also largely responsible for the initiation of the pendulum, longitude, tidal, and levelling operations. It was in 1864 that Walker first applied to the Secretary of State for India for sanction to undertake a series of pendulum experiments in connexion with the Great Trigonometrical Survey, and his application was strengthened

by opinions from several of the most eminent Fellows of the Royal Society in favour of the undertaking, more especially as affording an independent check on the local variations in the direction of the force of gravity, and on the disturbances due to the mountain masses north of India. The necessary sanction having been obtained, the Royal Society lent for the purpose of experiment an astronomical clock and two invariable pendulums, and this equipment was supplemented by a copper vacuum cylinder and an air

pump. The apparatus arrived in India in 1865, and the work was at once commenced by Captain J. P. Basevi, R.E., who had been placed in charge of the operations. In the course of the next five years Captain Basevi swung the pendulum at nineteen stations of the Indian Arc from Dehra Dun to Cape Comorin, at two stations on the East Coast and at two on the West Coast of India, and he also swung them at Minikoy, an island of the Laccadive group. In 1870, two convertible pendulums, which had already been used on the Russian Arc, were lent to Colonel Walker by the Imperial Academy of Sciences at St. Petersburg, and it was hoped that by their means a connexion might be established between the Indian and Russian pendulum operations. One fact of great scientific importance was ascertained by these experiments, namely, that the density of the strata of the earth's crust under and near the Himalayas is less than that under the plains to the south. It was also a noticeable feature of Captain Basevi's

observations, and one that had been already observed in comparing pendulum observations made in other parts of the world, that at inland stations gravity appears to be in defect of that observed at coast stations in similar latitudes.

The superintendence of work in the field only formed a part of Colonel Walker's anxious and absorbing duties. The labours in the computing and drawing office also required his close attention, more especially



OBSERVATION TOWER, BARRACKPORE ROAD, CALCUTTA.

when, the main triangulation having been completed, the time had arrived for the dispersion of unavoidable, though minute errors in the observations of latitudes, longitudes, and azimuths, in such a manner as to obtain the closest approach to accuracy. This was a consideration of great intricacy and delicacy. The preliminaries for eventual calculations were carefully elaborated in the Computing Office, and the deduction of the work as a whole entailed the most elaborate calculations that have ever been undertaken in geodesy. All the observations were reduced *de novo*, and at last an accurate knowledge of the factor of expansion of the standard was the one thing wanting to permit of the final reductions of the base lines being taken in hand. In 1866-67 Colonel Walker, with Mr. Hennessey, was engaged in the verification of the standards, and in 1870 the whole of the reductions were completed. The details of the operations form part of the first volume of Colonel Walker's "Account of the Operations of the Great Trigonometrical Survey of India."

Colonel Walker retired in 1883, and by that year the principal triangulation had been carried down the coast of Burma, and an eleventh base line had been measured at Mergui. This triangulation is still in progress, and its extension northward became necessary after the annexation of Upper Burma in 1886. But the older instruments have been replaced by others more suited to modern requirements, for the introduction by mechanical means of superior graduation in instruments of the smaller class has placed it within the reach of surveyors to effect equally good results more rapidly and with less expenditure on equipment and on the staff necessary for transport in the field, than was formerly found necessary. The large 36-inch theodolites have given place to the lighter and more modern 12-inch instruments, for the 12-inch theodolite of the present day, with micrometer adjustments to assist in the reading of minute sub-divisions of angular graduation, is found to be equal to the old 24-inch, or even to the 36-inch instrument of forty years ago. A Magnetic Survey of India and Burma has also just recently been completed. This survey was initiated in 1897 by Professor Rucker, F.R.S., through the Royal Society, but work was not commenced until 1901. Observations of dip, declination, and horizontal force were taken at stations

that were, on the average, forty miles apart, while self-recording magnetographs have been established at Dehra Dun, Barrackpore, Kodaikanal and Rangoon, and the Magnetic Observatory at Colaba is co-operating.

Before closing this branch of the subject of survey operations in India, some allusion must be made to the Tidal and Levelling operations instituted in 1856 by Colonel Waugh for the purpose of determining the height of the base lines in the interior. These had, however, already been approximately measured by vertical observations between the principal stations, and had been referred to Lambton's datum, the sea-level at Madras. It became necessary to check the results of the observations by vertical angles by instituting a series of levelling operations, and the earliest work recorded was the connexion of Karachi with the Attock, Dehra, and Sironj bases. When Colonel Walker succeeded Colonel Waugh, he continued to push forward the operations. In 1862 two hundred and forty-two miles had been completed up the valley of the Ganges, and in the following year the operations had extended as far as Allahabad, and Captain Trotter, who was then in charge of the operations, found the levels of railway officials to be very inaccurate. Since that time lines of levels have been carried along the principal railways and roads throughout India, and are still in progress. In recent years levelling operations have been combined with tidal operations, and with regard to these latter, the earliest recorded tidal observations in India were taken at the Kidderpore



General J. T. WALKER, C.B., ROYAL (late Bombay),
ENGINEERS, F.R.S., etc.,

Surveyor General of India, from Jan'y. 1878 to 1884. Died 1896.

dock-head by Mr. James Kyd, an East Indian, who set an example of independent enterprise to his countrymen by forming a large docking establishment at Kidderpore which later on was taken over by the Government. Mr. Kyd's observations were spread over 22 years at Kidderpore, from 1806 to 1827, and were continued at Mud Point and Saugor Island during the two following years. In 1869 a special series of tidal observations was taken in the Hooghly with reference to the effect of a cyclonic wave if the river was embanked. Tidal observations in Bombay date from 1832 and at Karachi from 1857. For some years the work was practically at a standstill owing to financial considerations, but when Colonel Walker was on furlough in England in 1872,

his attention was drawn to the tidal investigations which were being carried on in England under the superintendence of a Committee of the British Association, and he suggested that when the tidal operations were resumed in India, their scope and object should be enlarged, and that they should be carried on in such a manner as to contribute towards the attainment of a better knowledge of the laws of the tides. In compliance with Colonel Walker's suggestions, one of his officers, Lieutenant Baird, R.E., was deputed to study the practical details of the method of tidal registration and the harmonic analysis of the observations, as conducted by the British Association. A new tide gauge was adopted

and a self-registering anemometer and self-registering aneroid barometer were constructed to accompany each tidal gauge, in order that the direction and velocity of the wind and the pressure of the atmosphere might be recorded together with the tidal levels. Thus all the necessary instrumental appliances for the investigation of tidal phenomena

were made available in India for simultaneous observations at six independent stations. On his return to India, Colonel Walker deputed Lieutenant Baird to make a reconnaissance of the coasts of the Gulf of Cutch with a view to selecting tidal stations. The first series of observations was completed in 1874, and from that year dates the systematic record of results attained. The tidal observations not only afford data for calculating the rise and fall, thus enabling a datum to be fixed for survey purposes, but they are of scientific interest generally, apart from their practical utility. The first series of observations taken established the fact that the mean sea-level of the Gulf of Cutch was higher by 7 inches at the head

of the gulf, and by 4 inches half-way up, than at the mouth. At the present time the tidal stations extend right round the coasts of India and Burma, and up to the Red Sea.

THE TOPOGRAPHICAL AND REVENUE SURVEYS.

The initiation of detailed topographical surveys, based on triangulation, is due to Colonel Colin Mackenzie, one of the most indefatigable surveyors and persevering collectors of information that ever served India. Mackenzie commenced his exploring labours shortly after the conquest of Mysore by the British, and early in the nineteenth century he was conducting the Mysore Survey, his system of triangulation being altogether independent of that of Colonel Lambton.

The results of his labours in Mysore were a topographical survey embracing 40,000 square miles, one general and seven provincial maps, and a valuable Memoir in seven folio volumes, containing besides the narrative of the survey, much carefully digested statistical, historical, and antiquarian in-



SURVEY OF INDIA ECLIPSE PARTY AT DUMRAON, Jany. 1898.

This represents the Survey of India Eclipse Party at Dumraon, Jany. 1898. The Party consisted of Mr. Pope (at the instrument), assisted by Mr. Haward, who made the exposures, and the late Mr. Theakston, who was responsible for the clock. The photograph was taken during one of the rehearsals.

formation. In 1809 Colonel Mackenzie became Surveyor-General of Madras, and subsequently Surveyor-General of India, but his surveys formed only a portion of the stupendous labours of Mackenzie. He devoted himself to the study of Indian antiquities and visited every place of any interest, from the Kistna to Cape Comorin, accompanied by a staff of assistants, copying and collecting records. Our present knowledge of the literature and early history of Southern India is largely due to the Mackenzie MSS.

The topographical survey of the Portuguese territory of Goa was commenced by Lieutenant Garling in 1811, and this was followed in 1813 by work in Soanda and Bilgi, in North Canara, the topographical survey of

Soanda being founded on the base measured near Goa, whence a net of triangles was extended over the new country, and united with the stations of Lambton's Trigonometrical Survey. Work in the other districts of South India followed in due course, and by 1830 the full material for a map of the whole peninsula of India south of the Kistna, based on Lambton's Great Trigonometrical Survey, had been furnished.

While work was thus being vigorously pushed forward in the South, the surveyors in the northern part of the country had not been idle, though their labours were of a somewhat desultory nature. In 1800 Lieutenant Wood had made an elaborate survey of the Ganges from Hardwar to Allahabad, and in 1808 Colonel Colebrooke, who was Surveyor-General at Calcutta from 1803 until his death in 1810, resolved to complete the examination of the sacred river from Hardwar to its source. But while he was preparing to set out, Colonel Colebrooke was seized with a fatal illness, and the execution of the project devolved on Captain Webb, who was accompanied by Lieutenants Raper and Hearsey. They surveyed the course of the Ganges from Hardwar to its source at Gangotri, and fixed the position of Shrinugger. In 1807 Dr. Buchanan, who had so ably reported on Mysore and Malabar, was nominated by Lord Hastings to make a statistical survey of Bengal, with an account of the condition of the people, their resources, agriculture, and productions. After the termination of the war with Nepal in 1815, Lord Hastings appointed Captain J. A. Hodgson and Lieutenant Herbert to survey the mountainous regions between the Sutlej and the Ganges; Captain Webb from 1815 to 1820 continued the survey of the province of Kumaon, and operations were further carried on in various parts of the country, including Sylhet, the Sunderbunds, Central India and Bombay.

The Revenue Surveys were commenced in the North-West Provinces in 1823, and were undertaken mainly with a view to forming a settlement for the land revenue, and the correct delineation of boundaries of estates was considered of more importance than accurate topographical detail; while rapidity of execution, rather than good mapping, was the object of the surveyor. The Scientific Survey laid down, on a scale of four inches to the mile, the village boundaries and the main geographical features of the country; the Native Survey consisted of a rough plan of the

village and fields, and a list of the fields with their measurements. The Revenue Surveys were under Major Bedford from 1830 to 1840, and in 1844 Major Wroughton became Superintendent, holding the post till 1847, when he made over the work to Captain Thuillier, and it is from this period that the real progress in both the Revenue and the Topographical Surveys dates. At that time Sir Andrew Waugh held the combined posts of Superintendent of the Trigonometrical Survey and Surveyor-General, and Major Thuillier became his Deputy in the Surveyor-General's Office. The most interesting and valuable of the Topographical Surveys executed in Sir Andrew Waugh's time were those of Cashmere and the Sind Sagar Doab, under Montgomerie and Robinson respectively. Montgomerie's work on the



The equatorially mounted Camera used in photographing the Corona in the Total Eclipse of the Sun, by the Survey of India party under Mr. Pope, at Dumraon, on Jany. 22nd, 1898.

Trigonometrical Survey in Cashmere has already been referred to, and, as previously explained, the Topographical Survey proceeded together with the main triangulation, and both were under the superintendence of Captain Montgomerie. The filling in was executed by the plane table, on a scale of two miles to the inch for the valleys, and of four miles for Ladak and the wilder region. At the close of 1864 the Cashmere Series was completed, and after ten years of uninterrupted labour in Cashmere, Montgomerie went home

on leave, and Lieutenant Carter received charge of the party, which was sent to commence a topographical survey of Kumaon and Gurhwal, on a scale of one inch to the mile, with a survey of the tea plantations and of the stations of Mussoorie and Landour. In 1867 Montgomerie returned to India and resumed his work, conducting the Kumaon and Gurhwal survey, and executing a specially accurate survey of the hill sanitarium of Ranikhet. Montgomerie was senior Deputy Superintendent of the Great Trigonometrical Survey when he retired in 1875, with the rank of Colonel; the work for which he is most generally known among geographers is that comprised in his system of employing native explorers to make discoveries in the unknown regions beyond the northern frontiers of British India.

Captain Robinson's work comprised a complete survey of the whole highland country of the Sind Sagar Doab between the rivers Indus and Jhelum, and from the nature of the country this was a task of great difficulty. The area comprised 10,554 square miles, and the cost of the survey was nearly two lakhs of rupees. The regions traversed witnessed some of the exploits of Alexander the Great, and included the site of ancient Taxila, the burial place of Bucephalus. Here, too, was the line on which India had been invaded from the days of Alexander to those of Nadir Shah. Between 1849 and 1853, Lieutenant Walker, the future successor of Sir Andrew Waugh, executed a military reconnaissance of the Trans-Indus region, from Peshawar to Dera Ismail Khan, single-handed. Rapid progress was made with Revenue Surveys under Sir Andrew Waugh, by Blagrove in the Jullunder Doab, Gastrell in the Sunderbunds, O'Donel in Aracan, and Van Renen in Nagpore. One important object of the Revenue Survey is to fill up the outlines fixed by the Great Trigonometrical Survey, and to put sinews and flesh on the skeleton constructed by that survey. The method of procedure was as follows:—The settlement officers marked the boundaries of the *pargana*, and furnished the surveyor with a rough sketch demarcation map, called *thak-bust*. With this map men went round, fixing the stations and clearing the ground for measurements. The surveyor then ran a line from station to station, as near to the boundary as possible, entering every measurement in a field book, and parties of village boundary surveyors did the same with the villages. The field measurements by natives were checked by the general survey, and the physical details were filled in by the plane table. It will thus be seen that the Revenue or Cadastral Survey, on which the work of the Settlement Officer is founded, is the basis of our system of administration, and in every province in India, with the exception of Bengal, there now exists an elaborate machinery, extending its ramifications into every village, for the purpose of maintaining an accurate record of the rights and liabilities of all classes of the agricultural populations. In the greater part of Bengal nothing of the kind exists. There has been, until recently, no Cadastral Survey and no record of agricultural rights; but within the last 15 years these have been introduced throughout North Behar, and in

the greater part of Orissa, as well as in parts of other districts and in estates under Government management. Under the arrangements of the Permanent Settlement in Bengal, the Government has no anxiety about the collection of its land-revenue. The systems of settlement in the other provinces vary somewhat, but under one system or another, Cadastral Surveys have been made and registers of rights and possessions have been prepared, which, notwithstanding inevitable imperfections, are probably as complete as those that exist in any other country. Much in the existing land-revenue system of Northern India is due to the Emperor Akbar, and it assumed almost its present form under the East India Company; the improvements that have since been introduced having only followed the creation of separate departments for the control of this branch of the administration. From 1857, when the Revenue Survey of Madras was commenced by Captain Priestley, the Superintendent of the Madras Revenue Survey, the Madras Presidency has continued to maintain a survey department of its own, whose work has been generally based on Lambton's triangulation and carried out on the main circuit system of traversing. The Bombay Revenue Survey is considered the most perfect for revenue purposes. The careful elaboration of the original design of the Bombay system is due to Sir George Wingate, and his labours, extending from 1836 to 1866, resulted in the admirable system of administration which proved so efficacious in promoting the revival of agriculture in the Presidency. The first Revenue Survey of the Punjab was organised soon after the annexation of the country, and was conducted by the settlement officers with the aid of native village officers. The Patwari, who in the Punjab took the place of the Hindustani Amin, was in 1852 supplied with instruments with a view to his making a native *hud-bust* map, and outline sketch of the village boundaries. A professional survey, working independently of the Patwaris, fixed the boundaries of villages and inserted interior details, but did not measure the fields. Revised settlements were taken up in 1863 since when a great advance has been in the native system of conducting a Cadastral Survey of fields, and more scientific results have been attained, both in the measurements and in the maps.

In the United Provinces the Cadastral System is the Patwari system, with its advantages, but without its drawbacks, as the work was controlled and supervised by Survey of India officers and was based on a scientific survey executed by Survey of India parties, and the 16 mile plans were surveyed and drawn with a view not only to revenue, but also to topographical requirements, the resulting maps being very fair topographical maps. The Bengal system is not a Patwari system, and is consequently very expensive.

Measures are now being taken to organise a revisionary survey over the whole of India and Burma, for the purpose of bringing the existing maps up to date. In 1904 a Committee was appointed to report on the state of the maps in each Province, and the means to be adopted to bring them into line with modern requirements. The Committee submitted its report in the following year, and among the more important

recommendations were:—(1) That the preparation of a modern map of India on the scale of one inch to the mile should at once be undertaken according to a definite programme, by which fifteen topographical field parties would be employed and the whole work would be completed in twenty-five years; and further, that the scale of the survey should be at least double that of publication. (2) That for the production of this map an improved process of helio-zincography should be employed, a few selected standard sheets being engraved on copper. (3) That the Atlas of India sheets should be superseded by "degree" sheets on the quarter-inch scale, to be engraved on copper. (4) That, in place of the one-sixteenth-inch Provincial maps, a general map of India on the international scale of 1:1,000,000 should be prepared and engraved. (5) That the staff of the Imperial Service for trigonometrical and topographical work should be increased from forty to seventy officers. (6) That in place of the existing Provincial Service, a new Provincial Service should be established on better pay, and another Service formed intermediate between this and the present Subordinate Service, one quarter of the appointments in the former and one-half in the latter being given to natives of India. (7) That cadastral and other large

scale surveys should be left entirely under the control of Local Governments, who should provide for the expense of the work and also for the production of the maps. (8) That village boundaries should not be shown on the ordinary topographical maps, but that if

these are required for administrative purposes, a special edition showing them should be issued under certain conditions. (9) That the cost of special forest surveys, when required, should be debited to the Forest Department.

In July, 1907, a Conference of administrative officers was held at Mussoorie, and one of the subjects discussed was the handing over of the triangulation and traversing work, which had been done by each party of the Topographical branch, to the Trigonometrical branch. The existing system was considered unsatisfactory, mainly because the work was often conducted on unscientific principles, which interfered seriously with the Topographical output, while it never harmonised, being performed under so many executive and adminis-

trative officers. It was therefore decided that, though the present system must continue temporarily, a scheme should be drawn up to strengthen the Trigonometrical at the expense of the Topographical branch.



Colonel F. R. LONGE, R.E.,
Surveyor-General of India from 1904



Education in India.

THE modern history of education in India dates from the famous despatch of 1854. This state document first constituted upon a modern basis a state system of organised public instruction. Previous to 1854 much had been written and not a little had been done. The controversies which in every country wrap up any large movement of education, to some extent nourishing it and to some extent holding it back, were free and abundant in India before 1854; but they were controversies of educational ideals rather than controversies of conflicting systems of instruction. In fact, there were no systems of instruction. The British had succeeded to none when they came to India, and it was long before they were free to consider educational questions at all. Not that India was an uneducated country; far from it. From a remote antiquity it has possessed seats and traditions of learning. Hindu pundits and Mohammedan maulvis from the earliest times gathered pupils round themselves, or set up schools of religion, law and philosophy. Nobles, landowners and wealthy men employed teachers for their sons and admitted the sons of their neighbours to the benefits of instruction. But all instruction was connected with religious training, and was limited in practice by barriers of caste and social privilege. The notion of popular instruction, alien to the traditions of the East, was introduced by Christian missionaries in the nineteenth century. The historian of the future may perhaps regard it as the most decisive event, after the establishment of the Empire, in that century.

Some account must be given of the first efforts of the British in the educational development of the country. For many years nothing was attempted. In the disorders and embarrassments of establishing the Empire, there was little time or occasion to think of education.

Indeed, the authorities generally regarded it in the light of a dangerous innovation, and an attempt by Mr. Wilberforce to add two educational clauses to the East India Company's Charter Act of 1792 A.D., was defeated. The Calcutta Madrasa was founded in 1781 A.D., and the Sanskrit College at Benares ten years later, but these institutions had a special rather than a general educational object, *viz.*, to train for the

public service persons qualified to interpret Mohammedan and Hindu Law. To Lord Minto must be ascribed the credit of introducing larger and more liberal views of general education. In a minute written in 1811 this enlightened Governor-General put forward the broad proposition that the ignorance of the people was obstructive to good government and conducive to crime. This doctrine fell on soil that was ready for it. The activity of the missionaries had paved the way, the market value of an English education for Government employment had become obvious, and the ideas in England had undergone slow change. In the East India Company's Charter of 1831 A.D., a clause was inserted directing the expenditure of £10,000, or one lakh of rupees per annum on "the revival and improvement of literature, and the encouragement of the learned natives of India and the introduction and promotion of a knowledge of the sciences among the inhabitants of the British territories in India." This reform found the Indian



EARL OF MINTO.
Viceroy 1867—1873.

Government engaged in a war with Nepal, and no definite policy was adopted at the time. The foundations of modern education in India were laid about 1823 A.D., when a Committee of Public Instruction was appointed, and the choice of the main line of advance came gradually under discussion. Ideas hitherto floating about in occasional talk and isolated decisions of disputed points were slowly

precipitated into the definite issues of a big political controversy.

Two schools of thought arose, the Orientalist and the Anglicist. The former sought to teach the literature of the East and to convey the science of the West through translation into the classical languages of the East. The latter sought to spread Western science through the medium of the English language. The controversy became more and more acute, and for some years it paralysed the work of the Committee of Public Instruction. Eventually it was settled by Lord Macaulay's famous minute, dated 2nd February 1835, in favour of the Anglicists. In that minute he wrote the following memorable words:—

"How stands the case? We have to educate a people who cannot at present be educated by means of their mother-tongue. We must teach them some foreign language. The claims of our own language it is hardly necessary to recapitulate. It stands pre-eminent even among the languages of the West. It abounds with works of imagination not inferior to the noblest which Greece has bequeathed to us; with models of every species of eloquence; with historical compositions, which, considered merely as narratives, have seldom been surpassed, and which, considered as vehicles of ethical and political instruction, have never been equalled; with just and lively representations of human life and human nature; with the most profound speculations on metaphysics, morals, government, jurisprudence, and trade; with full and correct information respecting every experimental science which tends to preserve the health, to increase the comfort, or to expand the intellect of man. Whoever knows that language has ready access to all the vast intellectual wealth which all the wisest nations of the earth have created and hoarded in the course of ninety generations. It may safely be said that the literature now extant in that language is of far greater value than all the literature which three hundred years ago was extant in all the languages of the world together. Nor is this all. In India, English is the language spoken by the ruling class. It is spoken by the higher class of natives at the seats of Government. It is likely to become the language of commerce throughout the seas of the East. It is the language of two great European communities which are rising, the one in the South of Africa, the other in Australasia; communities which are every year becoming more important, and more closely connected with our Indian Empire. Whether we look at the intrinsic value of our literature or at the particular situation of this country, we shall see the strongest reason to think that, of all foreign tongues, the English tongue is that which would be the most useful to our Native subjects.

"The question now before us is simply whether, when it is in our power to teach this language, we shall teach languages in which, by universal confession, there are no books on any subject, which deserve to be compared to our own; whether, when we can teach European science, we shall teach systems which, by universal confession, whenever they differ from those of Europe, differ for the worse; and whether, when we can patronise sound philosophy and true history, we

shall countenance at the public expense, medical doctrines which would disgrace an English farrier—astronomy, which would move laughter in the girls at an English boarding school—history abounding with kings thirty feet high, and reigns thirty thousand years long—and geography made up of seas of treacle and seas of butter."—And Lord Macaulay proceeded to cite as illustrations the revival of letters through the media of the Latin and Greek languages and the education through the French language of the higher classes in Russia. The illustrations were not really apposite. The battle, indeed, was fought upon the ground of literature and science; but the real issue was between two antagonistic civilisations, the issue which has confronted every imperial race in the government of civilised subject peoples,—which shall prevail, the ideals of the conquerors or the ideals of the conquered? Seventy years ago this issue was decided clearly by the authorities; time alone can show whether the decision will be accepted as final by the people themselves.

The necessity for elementary vernacular education was not altogether overlooked, although the theory that education must filter downwards held the field. In the North-Western Provinces the Lieutenant-Governor, Mr. Thomason, inaugurated a system of elementary vernacular schools supported or maintained by a local cess contributed by the landowners. In Bombay, thanks mainly to the impetus given by Mountstuart Elphinstone, vernacular schools had been opened, the cost being borne partly by the Government and partly by the people; these schools were developed and a system of inspection was commenced. In other provinces indigenous schools received mild encouragement in different ways; but generally more attention was given to higher education. Indeed, at that time there was little demand by the people themselves for wide-spread instruction in their own language, and the attempt to place educational facilities before them let loose the wildest rumours of sinister designs against their children; wholesale conversion to Christianity, and even wholesale slaughter of the innocents were imputed to the Government as the dark design behind and beneath its avowed but strange benevolence.

As already stated, the despatch of 1854, which is associated with the name of Sir Charles Wood, afterwards Lord Halifax, is the *magna charta* of Indian Education. This celebrated state paper called the special attention of the Government of India to the necessity of spreading and improving popular education, whether in English or vernacular, and to the importance of a useful and practical form of education for the masses of the people. The chief recommendations were:—

- (1) to constitute a department of public instruction in every province,
- (2) to found universities at the Presidency towns,
- (3) to establish institutions (training colleges and normal schools) for training teachers of every grade,
- (4) to maintain existing Government colleges and high schools, and where necessary to increase their number,
- (5) to establish new middle schools.

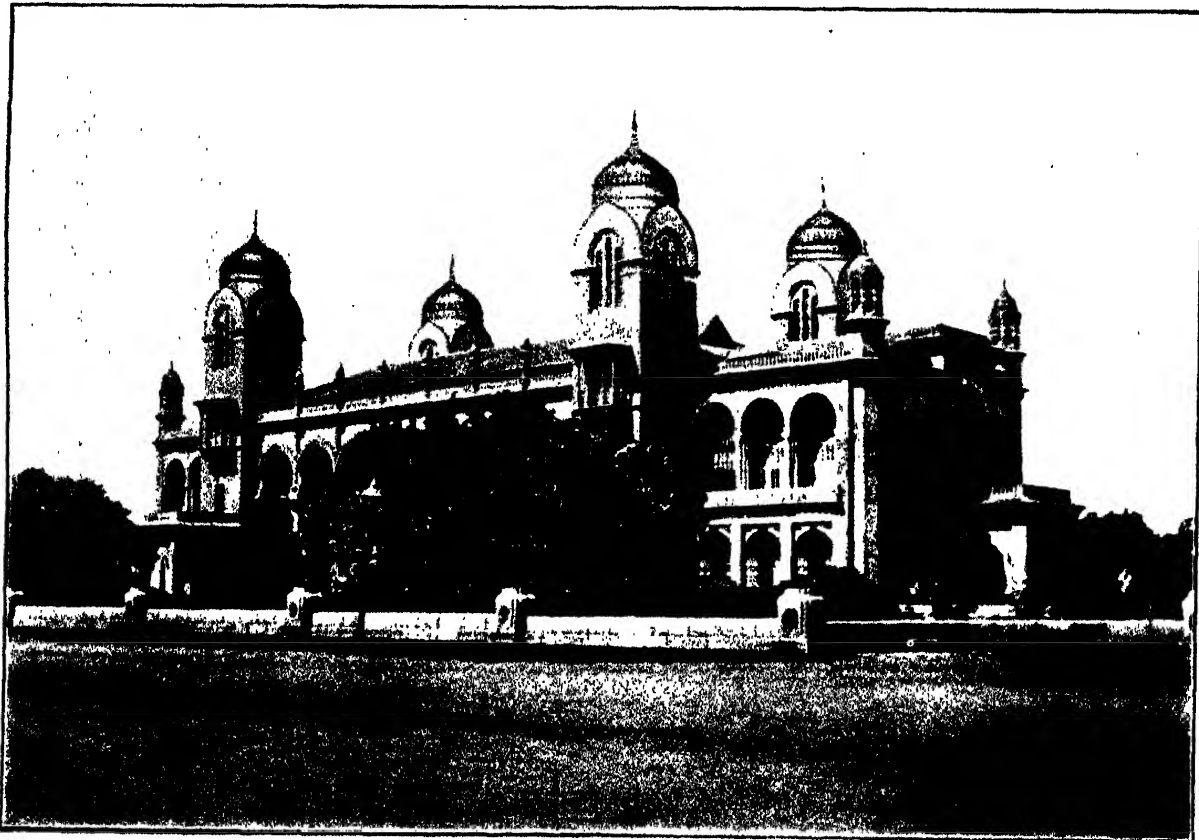


THE PRESIDENCY COLLEGE, CALCUTTA.

- (6) to develop vernacular schools indigenous or other,
- (7) to support female education,
- (8) to make English in the higher, and vernacular in the lower branches, the medium of instruction.
- (9) to start a comprehensive system of scholarships connecting lower schools with higher,
- (10) to give preference in making appointments for Government service to persons possessed of educational qualifications.

The greatest innovation was the system of grants-in-aid. This system was to be based on the principle

There was no hesitation in India in giving effect to the progressive policy prescribed from England. Departments of Public Instruction were organised; universities were established at Calcutta, Bombay and Madras; the grant-in-aid system was started; and advance was made all along the line. The events of the mutiny did not shake the belief of the authorities in the advantages of widespread education; rather, they served to confirm that belief; but the heavy expenditure involved in quelling the disturbance and restoring order undoubtedly retarded the rate of progress. In so far as higher or English education was concerned, the enthusiasm of private enterprise came to the rescue, and so



THE SENATE HOUSE, MADRAS.

Photo by Higginbotham & Co.

of religious neutrality; the conditions of a grant being that the institution should charge fees, be properly managed and be inspected by a Government Inspector on whose reports the continuance or modification of the grant would depend. Government institutions were not to clash or compete with aided institutions; indeed, it was in contemplation that the former should gradually make way for the latter. "The discontinuance of any general system of education entirely provided by Government, is anticipated with the gradual advance of the system of grants-in-aid; but the progress of education is not to be checked in the slightest degree by the abandonment of a single school to probable decay."

directly bore witness to the wisdom of the policy of 1854; but the demand for elementary vernacular instruction was still feeble or non-existent, and private enterprise was impotent in this field of effort. Accordingly it became necessary to impose local taxation for local schools, and local taxation fell upon the land in the shape of a cess calculated as a small percentage on the land revenue and collected with it. Between 1865 and 1871 various enactments were passed in different parts of India throwing upon the agricultural population some part of the cost of their education. The burden was light and the resultant progress was satisfactory. But the educational needs of the country

began to grow faster than the means of supplying them, and the growing ideas of Local Self-Government suggested new ideas as to educational machinery. The relation between Government and private enterprise had not everywhere been satisfactorily adjusted, and the tendency to stereotype forms of educational effort had been encouraged by departmental action. Moreover, the Central Government had, since the decentralization reforms of 1871, lost touch with the movements of education in the provinces. For these reasons, and more especially to introduce greater elasticity and to stimulate private enterprise and popular interest in the work, Lord Ripon appointed a Commission in 1882, to review the position and gather up the experience of a generation for a big move forward. The questions of university education, technical education and the education of Europeans were excluded from the scope of the enquiry as having been or about to be separately under consideration, but otherwise the Commission were invited to examine all the educational problems of the day in the light of the policy already indicated. "It is the desire of Government," so ran the resolution appointing the Commission. "to offer every encouragement to native gentlemen to come forward and aid, even more extensively than heretofore, in the establishment of schools upon the grant-in-aid system; and His Excellency in Council is the more anxious to see this brought about, because, apart altogether from the consequent pecuniary relief to Government, it is chiefly in this way that the native community will be able to secure that freedom and variety of education which is an essential condition in any sound and complete educational system."

The notion of developing the grant-in-aid system led naturally to proposals for withdrawing by the State from the maintenance of institutions in favour of management by private bodies. Such proposals excited much opposition in different quarters on the ground that in the then existing stage of educational development they would involve the surrender of State institutions of a secular character to missionary enterprise. In the result the proposals were so hedged about by conditions that the carrying of them into effect was rendered well nigh impossible. Generally the Commission re-affirmed the principles laid down in the despatch of 1854, particularly in the principle of self-help in higher or English education. They emphasised the necessity of a more liberal provision for primary vernacular instruction by provincial Governments and local bodies. To the latter they assigned a more important function in the control of, or rather influence upon, education, than they had hitherto possessed. Some variety in the courses was also advised. Special recommendations were also made for the education of backward communities generally and of the Mohammedans in particular. The recommendations were adopted by the Government and formed the basis of much correspondence and some practical reforms. But the financial difficulties consequent on the fall in the exchange value of the rupee checked the development which might have been expected. Excellent schemes were held up for want of funds or pruned away and introduced without enthusiasm. The schools under the direct management or responsibility of the department naturally received the

lion's share of the funds available. And so the grant-in-aid system was starved, and a feeling of discontent and rivalry grew up which has not yet been finally allayed, even though the causes of it have been to some extent removed. Many if not most of the educational troubles of recent years can be directly traced to the penury of Government in the decade and more that followed the work of the Commission of 1882. The sacrifice of the system to examination tests was a concession to economy which commended itself to a Government which could not find the money to pay for competent teachers, variety in subjects taught and proper control by inspection. Only by liberal expenditure could efficiency be reached; it was sought to tune up the system to a spurious kind of efficiency by multiplying examinations and tightening them up.

When the financial position of the Government of India grew stronger, the public began to call with increasing emphasis for a larger expenditure on education. It was pointed out, in the press and in the Council chamber, that the expenditure on education in India compared unfavourably with the expenditure on education in any other civilised country. Lord Curzon attacked the problem with characteristic vigour. He appointed a Commission to enquire into the working of Indian universities and he summoned a conference of educational experts to Simla. The labours of the Commission ended in the passing of a new University Act. The labours of the Conference ended in a resolution on educational policy. Both marked a distinct advance in educational matters and were supplemented and reinforced by liberal grants of money on a scale unprecedented. But perhaps no development has equalled in importance the appointment of a Director-General of Education. Against this measure many powerful arguments were available and were put in use, but looking backward it must be admitted that few reforms have been more fruitful of results. Mr. H. W. Orange, C.I.E., the first Director-General has vanquished opposition by the invaluable services which he has rendered to the cause of education all along the line. An enumeration of the various reforms initiated during the last five years in the various provinces would fill a small volume and cannot be attempted here; but some account must be given of the present state and tendencies of the various lines of movement, and it will be convenient to begin at the top, because it is round the peak of higher education that energy has played most vividly, producing heat no less than light, and throwing the influence from above down through all the stages of instruction.

The three older universities of Calcutta, Bombay and Madras were founded in 1857. In 1882 and 1887 universities were established at Lahore and Allahabad respectively, on the model of the other institutions. Thanks largely to missionary enterprise, institutions of collegiate rank had existed for many years. The object in constituting universities was to "encourage a regular and liberal course of education by conferring academical degrees as evidences of attainments in the different branches of art and science, and by adding marks of honour for those who may desire to compete for honorary distinction." The model followed was that of the University of London. The function of the university was to affiliate colleges,

prescribe courses of study, examine candidates who had complied with rules as to attendance and study laid down by the university, and confer degrees as the results of such examination. The teaching was to be done in the colleges dispersed over the country, and the examination by the university—a central body consisting of the Chancellor, Vice-Chancellor and Fellows. Most of the work of the university has always been done by the Syndicate and Faculties or Boards of Studies, but the Senate has always had the power of overruling the executive bodies carved out of it. In the course of time the Senates grew unwieldy in size; and difficult educational questions came to be discussed in assemblies not always qualified to understand them. Abuses grew up inevitably under a system subordinated to written examinations, with a large class hungry for Government service on the passport of examination results, and with colleges under-staffed for want of funds. The reforms under the new Universities Act contemplated the reduction of the size of the Senates and the due representation of educationalists on these bodies with at the same time a more popular system of election of fellows by graduates, more careful methods of affiliation, the regular inspection of colleges, the constitution of university chairs, and greater freedom generally for the development of teaching universities. The London University had ceased to be a merely examining body, and it was felt that the Indian universities suffered from too strict an adherence to their original model. The difficulties in the way of teaching universities of the European type in India are great, but a beginning has been made, and grants of money

were allotted with a view to putting the universities and colleges in funds to attain a higher degree of efficiency. In the colleges the most important consequences of the new Act and the regulations made under it have been the separation of schools from colleges where hitherto they had been combined, the development given to the system of residence in hostels, and above all the stimulus given by regular inspection.



THE UNIVERSITY LIBRARY AND CLOCK TOWER, BOMBAY.

The Universities Commission paved the way for far-reaching reforms in secondary education in bringing forward prominently to notice the necessity for a system of proper recognition of Secondary English schools. Secondary schools, properly so called, include every thing above the primary stage, and therefore include higher vernacular schools. But for the most part they are English teaching schools preparing for the colleges. There can be little or no improvement in the teaching at the colleges until students come to the colleges adequately prepared. If the teaching in the colleges has been bad, teaching in the schools preparatory for the colleges has been infinitely worse. Nowhere has the pinch of poverty been more acutely felt. There has been a great and growing demand

for English education, as the means of qualification for Government service and for a professional career leading in some cases to public life; and to meet the demand schools inadequately equipped sprang up. The policy of Government has always been to maintain a certain number of so-called model schools, but the schools were in most cases far from model and they failed altogether to leaven the lump. From a variety of causes, but principally poverty, the schools became

generally establishments cramming for a purely literary course with little regard for anything but passing examinations in the quickest possible time. Discipline, moral training, and most things except memory went to the wall in the feverish attempts to find a short cut to a successful examination. The conditions laid down for recognition now are "that a Secondary school is actually wanted; that its financial stability is assured; that its managing body, where there is one, is properly constituted; that it teaches the proper subjects up to a proper standard; that due provision has been made for the instruction, health, recreation and discipline of the pupils; that the teachers are suitable as regards character, number and qualifications; and that the fees to be paid will not involve such competition with any existing school as will be unfair and injurious to the interests of education." These tests combined with a more liberal expenditure should gradually free secondary education from the trammels by which it has been held in bonds, at any rate in many provinces.

Another matter to which much importance has been attached is the introduction of modern and practical courses into English schools. The majority of scholars have not the means or the inclination to pursue their studies to the stage of collegiate education. One of the essential recommendations of the Commission of 1882, who criticised the existing courses as being too literary, was to secure a bifurcation of the curriculum in high schools, one course leading to the university, the other designed to fit boys for practical work in various occupations; the former course to be terminated by the matriculation, the latter by the school final examination. In this way it was hoped to secure variety in secondary instruction. These efforts were not successful in any marked degree; few schools could afford to provide alternative courses; and the scholars still preferred the literary course leading to the matriculation examination. The attempt has now been made in most provinces to introduce a system of having examinations independent of the university, on the model of the *abiturienten prüfung* of Germany under which the attainments of scholars are tested by a practical examination *in situ* in subjects chosen by the scholars themselves; and money has been allotted to introduce a variety of subjects into selected schools. With the increasing industrialisation of India this reform seems destined to have one immensely influential result, *viz.*, that of making examinations subservient to education instead of dominating it as has been the case hitherto. To complete this reform in a practical manner will be costly, but few reforms are likely to be so fruitful of advantage to education in the most comprehensive sense of the term.

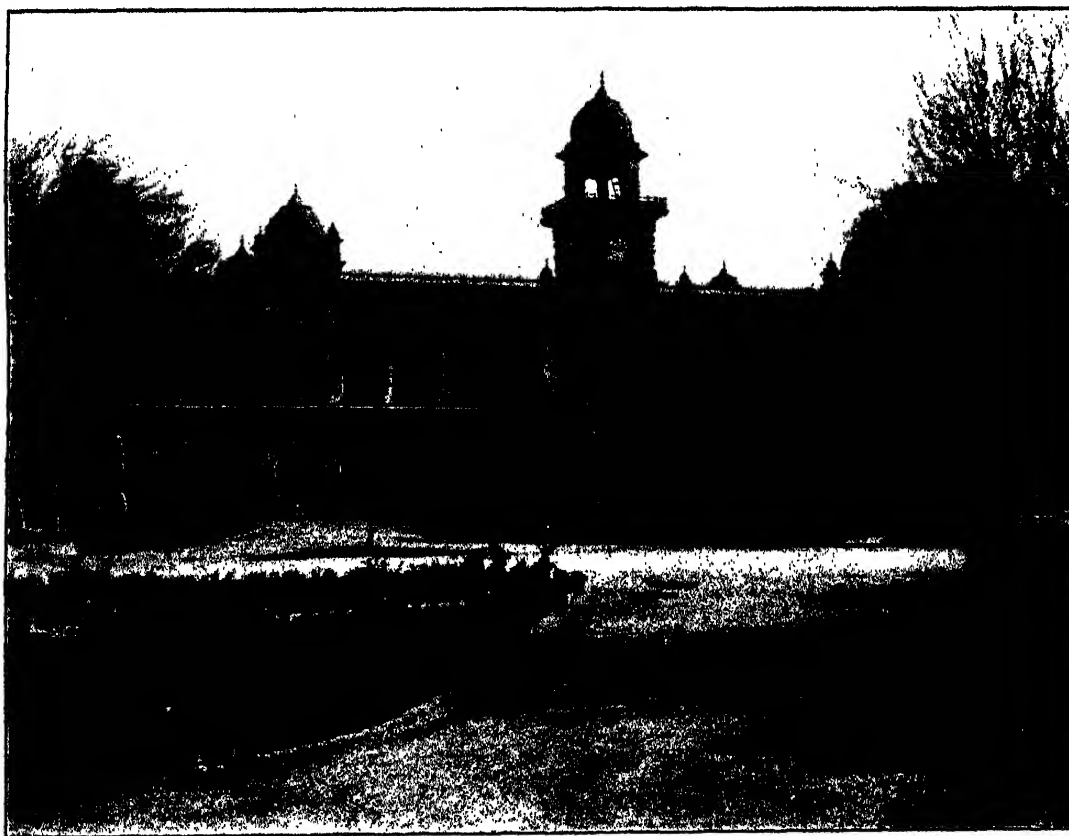
Primary education has been defined as the instruction of the masses through the vernacular in such subjects as will best stimulate their intelligence and fit them for their position in life. To promote primary education has been the constant refrain of the Government of India since the publication of the report of the Education Commission of 1882. Certainly some progress has been made, not indeed sufficient in most provinces to satisfy the Government or the public mind, but still substantial progress. Liberal grants have been made by the Imperial Government

for improving and spreading primary education. On all sides it is recognised that primary education is essential to dispel the ignorance of the people which cripples them in the business of daily life; but the people themselves have not, until lately, begun to take full advantage of the facilities offered to them, nor until lately has there been an at all adequate expenditure on this important object. The rapid extension of communications, especially of railways, and the growth of industrial enterprise, which are the marked characteristics of the last decade, have stirred new desires, at any rate in the neighbourhood of towns and in populous tracts in a population accustomed to ignorance for centuries; and great efforts are being made to meet the demands, an up-hill task as only one in ten of the male population and seven in a thousand of the female population were found literate at the last census. Primary education is largely under the control of local bodies, Municipal and District Boards, but the degree of control varies in different parts of India. In Bombay most of the schools are board schools; in Bengal and Burma, on the other hand, most of the schools are private schools. Other provinces lie between the two. The Bombay schools are admittedly more efficient than those elsewhere, but they are more costly; it costs over Rs. 6 per annum to educate a child in Bombay, and under Rs. 3 per annum to educate one in Bengal. In most provinces use is made of the grant-in-aid system to spread education, but the Board school seems destined generally, as funds become available, to oust the aided school. Meanwhile the grant-in-aid system is a valuable instrument of progress and its scope has been enlarged, where necessary, to include grants for buildings, furniture, appliances and other needs; while instead of being conditioned by examination results the grant is now measured by educational requirements, the number of scholars in attendance, the staff, the buildings, the quality as well as the quantity of the instruction given. The quality of instruction has certainly been greatly improved. Instead of a system of committing to memory passages largely written in the difficult and obsolete language of the classical writers, little children are now trained in simple subjects bearing on every-day life and explained in the language of every-day life, in a way that they can understand. Reading, writing and arithmetic are necessarily the subjects taught as heretofore; but kindergarten methods and object lessons, adapted to India, have been introduced; and much attention is now paid to the physical exercises of the country. In most agricultural countries where attendance at school is compulsory, some relaxation of the rules has in practice to be made, in order to meet the needs of the parents for the services of the children in the fields. In India, where compulsory attendance is not as yet known, except in a small portion of the Baroda State, and in one or two isolated localities, large concessions to agricultural requirements are necessary; and a system of half-time rural schools with simple courses has been worked out. The object of these schools is "not to impart definite agricultural teaching, but to give the children a preliminary training which will make them intelligent cultivators, will train them to be

observers, thinkers and experimenters in however humble a manner, and will protect them in their business transactions with the landlords to whom they pay rent and the grain-dealers to whom they sell their crops."

Those who seek more advanced instruction in their own tongue find it in the vernacular secondary schools. These schools carry instruction up to the end of the middle standard, or half way towards the complete high school course. From this stage boys often proceed to an English school. One of the difficult problems in Indian education is to decide at what point English should commence to be the medium of instruction. It is now generally agreed that English has often been commenced at too early a stage with results injuri-

The training of teachers is now receiving the attention which it deserves. Next to the provision of adequate salaries for teachers, it is the most urgent reform of all. Training colleges for secondary teachers and normal schools for primary teachers now exist and are being improved in every province; and no effort is spared to keep them in touch with the practical educational conditions of schools. Female education, the education of backward classes, and the education of Europeans and Eurasians have all received the close attention of the Government of India and Local Governments, and liberal grants have been made for their development, although not as yet in proportion to their need. On every side there is substantial



THE UNIVERSITY, LAHORE.

ous to education; and it is sought to secure that all scholars should be properly grounded in the vernacular before taking up English. The principle was laid down in the despatch of 1854 that European knowledge should be gradually brought, by means of the vernaculars, within the reach of all classes of the people; and in order to give effect to this principle and to secure the consolidation of the educational system, it is necessary that the Indians who learn English should also be familiar with their own vernaculars. The dividing line has now been drawn broadly at the age of 13. Below this age instruction is almost entirely in the vernacular; and the vernacular is a compulsory subject throughout the school course.

advance, and sounder educational ideals have come to be accepted.

The opening of the twentieth century has witnessed the beginnings of a change which is already affecting, and is likely to affect even more profoundly, the bearings of educational questions in India. For some years there has been a decided movement, commencing with the educated classes, but spreading lower down, in the direction of technical education. To this conspicuous and influential result many causes have contributed, not the least being a reflex movement from the West, acting upon an educated proletariat—which is itself the consequence of overstocked public service and professions—and the rise of Japan from

industrial beginnings to political power. For more than a quarter of a century the Government has preached the advantages of technical education to heedless ears, and now the tide has begun to turn. There are many definitions of technical education, which indeed has many aspects, and there is an unmistakable tendency for them to grow broader every year. The definition of the Simla Conference of 1901 may be accepted as sufficiently accurate and sufficiently comprehensive for the present purpose. This ran "technical education consists of (a) the study of the scientific methods and principles underlying the practice of any handicraft, industry or profession; and (b) the application of those methods and principles to the practice of the handicraft, industry or profession in question. The first is the primary or technological aspect of the subject, the second is its subsequent and practical application." This definition covers all forms of special as contrasted with

general education. It has been reached after efforts that have been somewhat diversified in character. From an early date colleges or classes have been provided for the teaching of law, medicine, and engineering; training colleges for teachers and agricultural schools followed after an interval; by degrees the engineering colleges took up mechanical and electrical work and expanded on other sides, and so on; but the system of general education has not yet been properly

adapted in any province to the requirements of special education. There is a consensus of opinion that general education should precede and be the foundation of the superstructure of special education. So long ago as the early eighties the Government of India, adopting the recommendations of the Education Commission upon the point, insisted on the necessity of a bifurcation of studies at the high school stage, and the introduction of a variety of subjects into

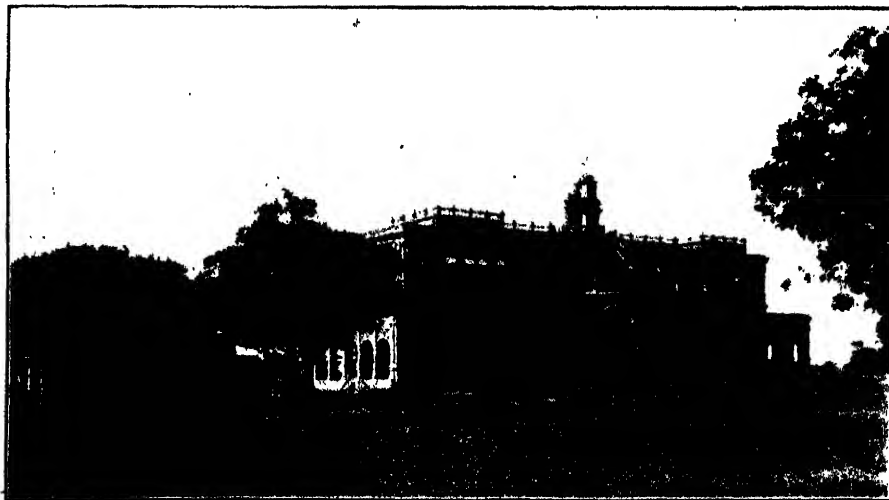
the school course; but the most advanced provinces have not moved far in the direction of a really modern education, while the more backward provinces have scarcely moved at all, owing largely, it must be said, to the cost involved in the introduction of modern methods.

The matter came under examination every five years when the results of the quinquennial came under review; Minutes were drawn up, essays were written, examinations were instituted, and the foundations of something

not very clearly defined were laid on paper. A practical step forward was taken by Lord Curzon's Government in the institution of technical scholarships for the study in England and America of industries existing or deemed capable of existing in India. These scholarships take the place of a sort of apprenticeship for intelligent individuals, but they do not affect the mass who are interested in technical work. These can only be reached by adequate facilities for education



THE AITCHISON COLLEGE, LAHORE.



THE RAJKUMAR COLLEGE, RAIPUR.

in India itself. In 1901 Sir Edward Buck made certain enquiries about practical and technical education, and the results of his enquiries were considered by the Simla Conference. The conclusions reached by the Government of India were that industrial schools were required, but that before entering such schools pupils should be grounded in the three R.'s, in fact, that industrial education should follow, not precede a certain amount of general education. The principles accepted were "that industrial schools should be devised to encourage particular local industries or trades; that the best type is the local or craft school; that they should be educational, and not commercial institutions, that in country districts they should be devoted to the study and development of single indigenous products, that in towns they should deal with manufactures, and that several industries may there be collected in one building; that only pupils shall be admitted to a school who intend to practise the trade taught there; that the system of paying pupils to attend such schools should be abandoned and fees levied where this is advisable without injuring the stability and popularity of the school; and that grants-in-aid should be given to assist craft schools established by private agency to develop local industries."

A committee was appointed to carry these proposals into effect; but in turn they proposed an alternative system of industrial instruction, based upon that followed in a school of a reformatory type in Naples. This alternative system was rejected by the Government of India and the matter was left with a fresh statement of principles and an invitation to Local Governments to work out salvation somehow. The matter, so ran the resolution, had not yet passed the stage at which many experiments must be tried and a proportion of failures must be expected. A distinction should be made between (i) great industrial centres where capital is employed in the organization of industries on a large scale, and (ii) towns in which local industries are practised as handicrafts. For the former whole-time schools should be set up and pupils should be admitted to them only after passing a comparatively high standard of general education. For the latter a special and practical form of school would be required, half the day being spent in general instruction adapted to the requirements of a particular craft, the remainder of the time being spent in learning the craft itself.

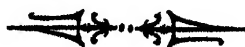
So the matter remained until 1907, when Sir John Hewett, Lieutenant-Governor of the United Provinces, summoned a strong and representative conference to Naini Tal to mature proposals for the development of technical education of different kinds in the United Provinces. The Conference included a large number of experts and business-men from different parts of India,

and its conclusions represent the best body of opinion yet collected on the subject. The problem set to the conference was: (1) how to adjust general education so as to predispose boys to industrial work or break down prejudice, already showing signs of being shaken, against manual labour; (2) how to train technically—(a) workmen, foremen, and traders or managers for the large organized industries employing machinery; (b) investigators; (c) workmen in local industries practised as handicrafts; (d) technical instructors. In disposing of this problem certain axioms or propositions were laid down, as containing the results of experiences in other countries. These were:—

- (1) Technical work must be connected with a local industry and have a definite object;
- (2) The teacher should be a practical expert and be given a free hand; in scientific branches he should be an investigator and have time for research; in the manipulative branches he should have been in works; and
- (3) Money must be spent freely on experimental work, and in keeping up to date all apparatus, tools, plant and appliances.

In no country has the last word, or anything like the last word, on technical education been said, but in every country it has been found difficult to keep technical education practical, aligned on a definite object and useful to those who have to earn their living by labour; and these propositions represent the wisdom accumulated by much effort, often misdirected, in different quarters of the globe.

To keep education practical—that is now the object of educational policy. The views of the idealist in the educational field of a generation ago have yielded to the pressure of material civilization. This movement synchronises with great changes in the realm of political thought. There also industrial considerations dominate and transform the constructive work of policy. The modern doctrines of national efficiency have arisen with an almost volcanic force from the depths of society in the progressive nations of the West. Not how to develop the faculties of the few on the lines of natural growth, but how to prepare the many for the struggle of existence and increase national wealth as a means of individual well-being is now the aim and end of education in the West. A similar movement is apparent in spasms of energy that have shaken the meditative and melancholy East, although the movement has so far spread only along the surface and has not risen from below. How it will end, what blessings it will confer, what misfortunes may attend it, none can foresee, but it cannot fail to quicken a desire for improvement, and it may be that it will introduce an element of greater hopefulness into Indian life.



Trade of India.

THE total trade of India in the year 1907-08 amounted to about Rs. 36,150 lakhs. The population is over 300,000,000, an increase, though checked by the plague, of over ten millions since 1891: the birth rate in 1906 was 37·8, the death rate 34·73 per mille: the trade at present comes to Rs. 12-0-9 *per capita* and it is increasing at the rate of over 6½ per cent. per annum, or nearly 12½ annas *per capita*: from this it is evident that an expenditure of one anna *per capita per annum* would add Rs. 1,87,50,000 or one-half per cent. to the present trade. The gross revenue of India in 1906-07 was (in crores of rupees) 113·4, the expenditure 111·0, leaving a surplus of 2·4: the net figures being 76·1, 73·7 and 2·4 respectively. The capital outlay was 16·4; and the debt on March 31, 1907, was: In India 130·4, in England 221·3. Total 351·7. On Public Works the receipts were 45·5 and the expenditure 4·5, including Interest on Debt, Railways 7·6, Irrigation 1·4.

India contains one-fifth of the inhabitants of the world, who live on 3 per cent. of the land surface. According to Mr. Gait, 147 distinct languages have been recorded as vernacular in the Indian Empire, while only 1 in 1,090 speaks with a European tongue; in 1901 it was reported that only 252,388 returned English as their mother-tongue, and that 2,664,241 were of the Christian religion, mostly in the Madras Presidency and Travancore. Hindustani is the *lingua franca* of India, and the understanding of English is slowly spreading from the centres where any Europeans are found. About two-thirds of the population returned some form of agriculture as their principal means of subsistence: 207 millions are Hindus: the total number of Muhammadans is 62½ millions or 212 *per mille*, and they form the following percentages in the provinces named:—Kashmir, 74; Punjab 32, Bombay 18, and the United Provinces 14 per cent. The very influential and generally wealthy Parsis who loom large in all Indian affairs, especially in Trade and Commerce, are only 94,000 in number, nearly all in Bombay and Baroda: and, what is strange, they are not increasing rapidly in number, owing, perhaps in some measure, to the enterprise which causes them to settle abroad wherever there is any prospect of good business. The three other principal religions are: Buddhists, nearly all in Burma, Sikhs in the Punjab, and Jains in the Bombay Presidency.

India has an area of 1,766,597 square miles, of which 61·5 per cent. is British and 38·5 per cent. is under Native rule. The mean density of the population per square mile is 167, having increased 50 since 1872. Areas with a population per square mile of less than 200 form 75·5 per cent. of the whole, and contain 34·6 per cent. of the population; the respective figures for areas of greater density being:—200—400 per square

mile, 11·7 per cent. of total area, and 19·7 of population: 400 to 600 per square mile, 8·2 per cent. of area and 19·7 per cent. of population: over 600 per square mile, 4·7 per cent. of the total area, and 21·5 per cent. of the total population. Only 99 per thousand live in towns, but the urban population is rapidly growing in India, as it is all over the world; for while the total population had only increased 2·4 per cent. between 1891 and 1901, the urban population had risen by 7·3 per cent. As stated in the last census: "the main cause of the phenomenon *seems* to lie in the large industries, such as cotton and jute mills, railway workshops, and the like, and the development of new trading centres which has been stimulated by the great improvement in communications that has taken place in recent years." There cannot be much doubt on this subject. The average rainfall is about 40 inches yearly and varies from 9·04 in Sind and Cutch to 173·34 in Tenasserim and even greater figures in the hills of Assam.

RAILWAYS.

Up to the end of March 1908 the Railway lines open measured 30,206 miles, and those under construction or sanctioned for construction, 2,516; or one mile to every 54 square miles and to every 9,000 inhabitants, and making about one-third of the mileage required to properly develop the country. Except on the map accompanying the Administration Report there is no means of ascertaining the mileage of double line: where there are more than two lines of way this fact is not noted at all. The Total Capital Outlay on Railways at the end of 1907 amounted (in crores of rupees) to 401, and a permanent debt of 7·6 had been incurred on their account. The net earnings yielded a return of 5·77 per cent. on the Capital Outlay to the end of December 1907: the percentage of working expenses being 51·38. The net gain of 5·77 per cent. was yielded after meeting, in addition to the expenses of working, all charges for interest on Capital Outlay by the State, and on capital raised by Companies, and also the annuity payments for railways purchased by the State, including both interest and the portion that represents redemption of capital; were the portion of the annuity payments representing redemption of capital added to the above surplus, the interest yielded would have amounted to 7·35 per cent. As pointed out in the Administration Report for the calendar year 1907, from which the above figures are taken, "even this understates the real surplus derived from the railways open to traffic, as the interest charges include the interest on outlay on lines under construction, which, if these lines were constructed by private enterprise, would be charged to the Capital Account." What this item amounts to is not given in the Report. How-

ever, the whole history of railways in India proves abundantly that they can be constructed and worked so as to yield a very handsome profit, and that any outlay in increasing the capacity of open lines, by adding rolling-stock, and sidings to accommodate it, and by multiplying tracks to meet the demands of the traffic offering, would cause even the handsome profits made during the past eight years to sink into insignificance. As stated by the Railway Board, "large additions to the rolling stock on a railway cannot be efficiently used unless additions to and improvements in open line works which are required to facilitate the effective working of the additional stock are also carried out." They have stated that the standard of equipment of Indian Railways has not been maintained at a rate commensurate with their development, and their remedy for this is to curtail expenditure on new lines, however much these new lines may be required, and by these means to find sufficient funds out of their grant to effect these desirable improvements. This display of financial impotence will, it is hoped, come to an end if some of the many proposals for raising the necessary capital are entertained by the Government; and if the natives of India can be induced to invest some of their hoards (estimated at three hundred million sterling in gold alone) the problem would be solved.

As pointed out by a correspondent of the *London Times*, 2,000 years ago the "Gorgeous East" had the reputation of storing up masses of unspent gold and buried wealth. Even then a millionaire was apostrophized as:—

"Intactis opulentior"

"Thesauris Arabum et divitis India."

Habits of that sort are not to be altered in a day. It is not for want of example. Not only Englishmen, but Jews and Parsis have shown that fortunes can be made in India. Probably the want of commercial courage, mutual trust, and consequent credit and capital, are due to the social condition of the country. Why, otherwise, has Bombay been more enterprising in industrial and commercial speculation than Bengal? But a beginning has been made. Not all the young Indians you see in London now are law and medical students. Some are learning the elements of business in manufactories and warehouses."

The establishment of co-operative credit societies is also working towards this end, as they rescue the poorer class of native from the village money-lenders, who will invest their capital (thus set at liberty) more and more in enterprises bringing less profit, but with better security. In fact, they might deal to their advantage with village societies instead of with individuals. The capital of these societies rose from Rs. 4.7 lakhs on March 31, 1906, to Rs. 21.3 lakhs on June 30, 1907; the loan transaction on these dates being respectively Rs. 3.6 lakhs and Rs. 25.4 lakhs.

Some further facts may be given showing the advantage of railways to the Trade and Commerce of India:—305.89 millions of passengers were carried who travelled 39 miles on an average, and were charged 2.44 pies per mile, or just over one-fifth of a penny. 62.10 million tons of goods were lifted in 1907, and car-

ried 175 miles on an average, and were charged 5.10 pie per mile or 0.43d. The number of employees on open lines was 516,756, of whom 7,180 or 1.41 per cent. were Europeans, 9,982 or 1.9 per cent. Eurasians, and 499,594, or 96.7 per cent. Natives. There were 7,140 children in the schools at the end of 1907, and 11,678 apprentices or workmen: the East Indian Railway are inducing a better class to join their technical schools, with considerable success, and if this example were followed, the spread of really useful knowledge would be greatly facilitated. As it is, the Railway workshops are doing a good deal in this direction.

POST OFFICE.

The Post Office brings in a net revenue (in lakhs of rupees) of 22.2, although the charges are the cheapest in the world. The total number of articles received for delivery were 800 millions of which 95.06 per cent. were delivered. The number of parcels exchanged with the United Kingdom was over 29½ millions: (their value is shown on Table II) and amounted to two-thirds of the whole traffic. The business of the "Value Payable Post" continues to increase; the number of articles sent were close on 6 million, and 65.0 was recovered from the addressees, the commission on which was 9.4. The rate of Commission on Money Orders is only one anna on sums not exceeding Rs. 5 and the money is handed to the payee at his house. Quinine is sold at practically all post offices.

TELEGRAPHS.

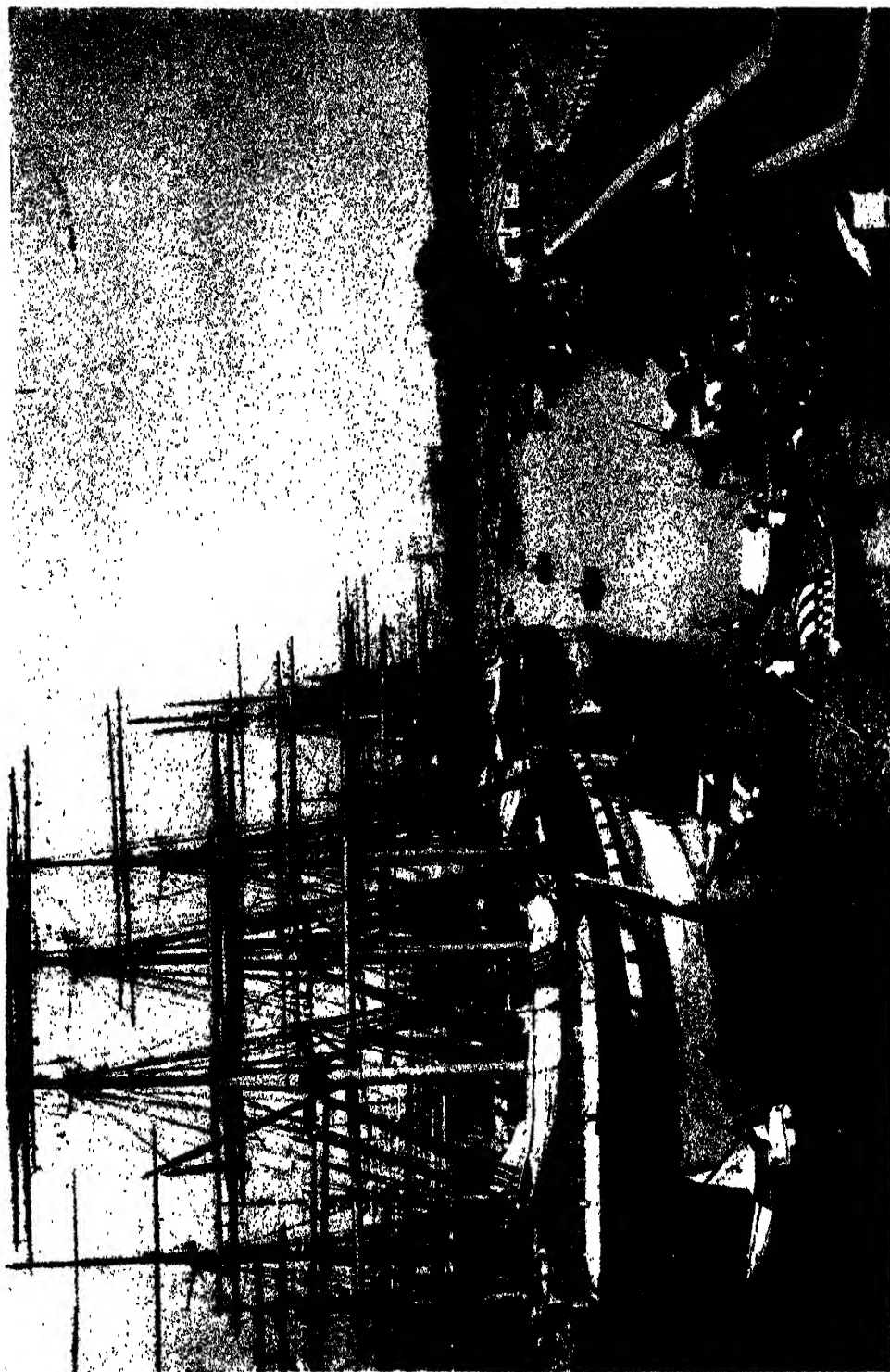
There are 7,000 offices, 67,000 miles of telegraph lines, nearly 250,000 miles of wire, and 390 miles of cable. The rates are very low, and in 1906-07 the receipts were not sufficient to cover both the working expenses and the capital expenditure by 29.4 lakhs. The total capital expenditure has been 987½ lakhs, and the return on the capital account about 3 per cent. Telephones are in their infancy; the gross receipts of the companies were only about 6½ lakhs and their average earnings less than 5½ lakhs. The average annual subscription to the Government telephone is a little over two lakhs. The total capital outlay on the Indo-European Telegraph has been 148½ lakhs, the working expenses are 70.22 per cent., and the net return to capital 3.09 per cent.

ROADS.

Seventy years ago, there were no roads in India: in 1901-2 there were 37,000 miles of metalled roads, about equally divided between the Government and Local bodies: and 136,000 miles of unmetalled roads, of which five-sixths were maintained by the local authorities. Some roads are under the Forest Department, or belonging to the owners of large estates, while many of them serve as famine relief works. In 1906-07 about Rs. 833 lakhs were spent on civil works, mostly roads, only 10.3 of which were spent in England, 489.4 by the Provincial, and 235.9 by the local authorities. It will be noted that there are ten miles of some sort of road to every square mile of country; this after deducting the urban roads, leaves a totally inadequate amount for the remainder of the country, where, in



STEAMERS IN THE MOORINGS, HUGHLI RIVER—NEW STYLE.



SAILING SHIPS IN THE MOORINGS, HUGHLI RIVER—OLD STYLE.

many districts, the most primitive methods of transport still obtain; in fact, it is estimated that, exclusive of Bengal, there are 3,200,000 carts in the country. There is evidently great scope for development here: some light railways have been laid on or beside the roads, and electric tramways are fast superseding the horse and steam ones, and are also being introduced in new places. A road train system is being tried, and will, if successful, work wonders. Still, although labour is cheap, the daily wage of the mass of the population is so small that the half-penny fare, so common in England, would represent at least two hours' income of the great majority of the people.

Average monthly Wage Rates in second half of 1906.

	Able-Bodied Agricultural Labourers.				Common Mason, Carpenter or Blacksmith.			
Ahmedabad ...	7	0			15	0	0 to 22	8 0
Ahmednagar ...	8	7			15	9	11 to 23	12 0
Amritsar ...	8	0			25	0		
Bachergang ...	7	8	0 to 12	0 0	15	0	0 to 20	0 0
Belgaum ...	6	0			14	0	0 to 15	0 0
Bellary ...	4	12			15	0	0 to 16	13 11
Bombay ...	11	4			26	4	0 to 37	8 0
Calcutta ...	6	0			15	0		
Cawnpore ...	3	15	0 to 7	8 0	7	11	0 to 15	0 0
Delhi ...	6	0			18	0		
Fyzabad ...	1	13	11 to 4	0 0	5	12	0 to 7	12 0
Jubbulpore ...	5	0			17	8		
Karachi ...	10	0			30	0		
Madras ...					13	0	0 to 16	0 0
Meerut ...	4	8			10	0		
Nagpur ...	8	0			20	0	0 to 25	0 0
Patna ...	6	8			13	0		
Raipur ...	4	0			10	0	0 to 15	0 0
Rangoon ...	15	0			45	0		
Rangpur ...	9	13	5 to 10	0 0	15	0		
Rawalpindi ...	10	5			22	8		
Salem ...	3	7			13	12	0 to 15	15 0
Toungoo ...	15	0			25	0		

WATERWAYS.

The waterways, except in Bengal, are not greatly used as means of communication, and even in that Province steam vessels are comparatively few and slow, especially when working up-stream and with a couple of flats hitched pannier-wise to them. It is true that they run pretty light on their long upward journeys—but coal is burnt and crews and establishment have to be paid; all these items go to swell the cost of the downward freight, and the competition of the railways increases every year. As to the traffic in country boats, it is only possible because the large crews live mostly on what they catch in the rivers, and are quite content to make only one, or at most, two journeys a year. They have an easy time of it coming down stream, but the labour of towing their heavy boats against stream is very arduous; ten or twelve men are employed and each has his own tow-ropes, generally made by themselves during their leisure time, or ramie fibre, steeped and decorticated by their women folk. It is not an uncommon sight to see these men up to their necks in water, on the convex side of a bend in the river, painfully and inch by inch pulling their boats round in the slackest stream they can manage to find.

LAND TENURE.

The following table is useful as showing the nature of the tenure over a great portion of the land (in millions of acres):—

District.	Ryotwari (peasant proprietor).	Zamindari (larger proprietors) and village Communities.		Totals.
		Permanently Settled.	Temporarily Settled.	
Upper Burma ...	49'0	.....	.....	49'0
Lower Burma ...	55'0	.....	.....	55'0
Assam ...	26'0	3 9	1'4	31'3
Eastern Bengal ...	.....	21'8	6'9	28'7
Bengal ...	.....	60'1	15'1	75'2
United Provinces, Agra ...	.....	6'2	46'4	52'6
United Provinces, Oudh ...	.....	1'1	14'2	15'3
Punjab ...	.....	.....	62'2	62'2
North-West Frontier Province ...	.....	.....	8'4	8'4
Sind ...	30'1	.....	.....	30'1
Bombay ...	44'8	.....	3'8	48'6
Central Provinces ...	1'6	.....	40'7	42'3
Berar ...	11'3	.....	.....	11'3
Madras ...	60'2	30'5	.....	90'7
Minor Provinces: (Ajmere, Coorg, Manipur) ...	1'0	1'0	0'7	2'7
TOTAL ...	279'0	124'6	199'8	603'4

IRRIGATION.

By the end of 1907 the capital outlay on Irrigation works had been (in crores of rupees) 50, and a permanent debt of 1'4 had been incurred, the area irrigated had been nearly 16 million acres.

Irrigation brought in 7.71 per cent on the capital outlay in 1906-07; mostly by the conversion of the desert tracts into highly cultivated lands. The work is all done by Government and is hardly open to private enterprise, as the bringing of such enormous areas under cultivation necessitates a high quality of administrative talent in settling and collecting water rates, in setting out new villages, and in inducing agriculturists from congested districts to leave their own province and to settle on the new land. The additional produce thus raised has facilitated the coping with famine, but has added enormously to the difficulties of the railways in finding sufficient rolling stock, passing places, sidings, and terminal facilities for handling the traffic without undue delay and at a reasonable cost. The question has been raised of establishing elevators in some of the most prolific grain centres; these appliances are mostly used for the purpose of grading wheat gathered from very large estates. The conditions in India are totally different: produce is collected from a host of small cultivators, whose every small parcel of grain varies in quality. The sorting, it is believed, has to be done almost entirely in the merchants' warehouses at the ports, although like most businesses, it is almost impossible to ascertain exactly how it is carried on. It is this difficulty which stands in the way of any real co-operation between the Trade and Commerce of the country and Government Departments.

DEPARTMENT OF COMMERCE AND INDUSTRY.

The Imperial Institute was to have done wonders; Commercial intelligence offices have been tried, and now a Director-General of Commercial Intelligence has been appointed "to prepare statistics and to act as intermediary between the Members of Council and the Commercial public." If this officer can establish some uniformity in reports, enabling items to be compared without a heart-breaking amount of cross reference, and if he compiles statistics that will interest the community and not be purely official, he will quite justify his appointment. But there is great lee-way to be made up. To quote the new Government Gazetteer: "Even when the East India Company was entirely divested of its functions as a trading firm, the jealousy of outsiders which had led to litigation against 'interlopers' in the 17th century still continued. Up to 1837 Europeans were not allowed to acquire or lease land without the sanction of the Governor-General in Council. For many years Commerce was encouraged, if at all, only by such indirect means as the experiments in the establishment of new staples of cultivation. Even the alignment of roads and subsequently of railways, though principally intended to develop the country, had frequently to be determined by other considerations, especially military needs....the complaint was commonly used that Government was indifferent to trade interest. The commercial questions referred to it were unduly delayed. The manner in which such questions had to be treated inevitably led to their being considered primarily from the standpoint of administrative convenience and, therefore, the complaint was, perhaps, justified. "It is considered that the steps now taken result in the Government being "no longer exposed to the charge of indifference to the interests of an important part of the community."

IMPORTS AND EXPORTS.

The importance of this part of the Community will be evident if the Imports and Exports be considered: the figures for 1834 (taking the rupee at 24 *d.*) are given in the following table and even then they were considerable. The figures for 1907-1908 are compared.

The freight represented by the last figures was carried (according to the accounts relating to Sea-borne Trade)

the tonnage is increasing, owing to the tendency of steamers to increase in size. With the exception of a few ocean-going vessels still visiting Calcutta, the other sailers are nearly all native crafts, coasters, trading with East Africa and the Persian Gulf. Of the total trade 54.95 per cent. in value are Imports, and 55.05 per cent. Exports, being Rs. 5.14.4 and Rs. 6.1.5 respectively *per capita*. The import duties collected amounted to Rs. 7,34,09,833, and the export duties to Rs. 1,02,33,658; a total of Rs. 8,36,43,491, or under 4a. 6p. *per capita*. These figures are made up of:—Export duties on Rice in husk, Rs. 1,68,881: unhusked rice Rs. 1,00,63,673 and rice flour Rs. 1,104. Of the import duties Rs. 1,30,72,372 were on salt. The value given in the statistical reports, from which the figures are taken, represent the wholesale cash price, less trade discount, as far as can be ascertained, no deduction being made on account of duties. Much of the trade as shown to and from Holland and Belgium is in reality trade with Germany; most of the large trade with Hong-Kong is trade with China, and some with Japan, the Philippines and America: that assigned to the Straits Settlements is greatly for the Far East; Colombo and Aden are also entrepôts. "Indian Merchandise" includes all goods grown, produced, or manufactured, in India.

In the course of his Budget speech in the House of Commons on 22nd July 1908, Mr. T. R. Buchanan, the Under Secretary of State, said (quoting figures in £ sterling, which are here turned into crores of rupees and decimals):—The customs duties are increasing year after year. The yield has gone up from Rs. 5.70 to Rs. 7.2 in the five years, showing an increase of 1½. This is due to the great increase of imports, and that increase may be attributed to the prosperity that was widespread before the present scarcity began. The increase in the five years of merchandise on private account has risen from Rs. 78.75 to Rs. 136.5, an increase in imports of 70 per cent. In exports the increase has been from Rs. 139 to Rs. 173.25, while the volume of trade has risen from Rs. 207.75 to Rs. 309.75. The increases have been in all the important articles—such as cotton, food and drink, manufactured goods and metals. Drink is not the largest of these items by any means. In the total of Rs. 17.25 the largest item is sugar, which yields us Rs. 9.00 out of Rs. 17.25. In the course of the

TABLE I.

	1834.			1907-08.		
	Imports.	Exports.	Totals.	Imports.	Exports.	Totals.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Merchandise ...	4,26,11,060	7,99,34,200	12,25,45,260	1,36,49,10,231	1,77,28,07,924	3,13,77,18,155
Gold and Silver ..	1,89,30,230	19,47,410	2,08,77,640	42,27,26,207	5,44,85,001	47,72,11,208
TOTAL .	6,15,41,290	1,88,81,610	14,134,22,900	1,78,76,36,438	1,82,72,92,925	3,61,49,29,363

by 1,437 sailers with 126,375 tons; 2,814 steamers of 6,726,757 tons; a total of 4,251 vessels and 68,53,132 tons. The number of vessels is diminishing, while

[See tables at end of this article for values of Imports and Exports in 1907-08, and wholesale Prices in January 1907 of Staple Imports and Exports.]

five years, metals and manufactured goods have risen from Rs. 14'25 to Rs. 30'00, and the value of imported cottons from Rs. 30'375 to Rs. 48'00. In exports jute stands first, having risen in value from Rs. 19'5 to Rs. 36'00, but cotton exports have risen from Rs. 19'75 to Rs. 36'75, while wheat and tea also show large increases.

IMPORTS. COUNTRIES OF ORIGIN.

The following further particulars about Imports are interesting. Under the head "metals" the following values arrived from the countries enumerated, the figures, being given in lakhs of rupees and decimals, *viz.*, *Angle, Bolt, and Rod iron*: Belgium, Rs. 3'4; United Kingdom, Rs. 1'0. *Bar iron*: Belgium, 3'0; United Kingdom, 1'2; *Beams, Girders, Pillars and Bridge Work*: United Kingdom sent more than Belgium. *Galvanized and Plate, and Tinned sheets and plate*: The United Kingdom was an easy first, the rest nowhere. *Black Plates*: Belgium 4'0, United Kingdom 0'9. *Other Kinds*: United Kingdom, 47'8; other countries 17'5; *Lead Gussets for Tea Chests*: United Kingdom, 9; other countries, 0'8. *Quicksilver*: United Kingdom, first; Austria-Hungary, second; *Steel Bars*: Belgium, 91'4; United Kingdom, 14'6. *Steel Beams, etc.*: United Kingdom, 33'8. Belgium, 26'1. *Hoop Steel*: United Kingdom, 20'8; other countries, 8'1. *Steel Plates*: United Kingdom first, followed by Belgium and Germany. *Other Sorts*: United Kingdom first, Belgium second. *Block Tin*: Straits Settlements first; United Kingdom second. "*Machinery and Millwork*":—*Steam Engines and parts*: 137'7; *Electrical Engines*: 29'7; *Mining Engines*: 7'8; *Textile Engines*: 2'6; *Other Engines*: 220'0. Of all this machinery and mill work there came:—From United Kingdom, 618'5; Germany, 14'0; United States, 11'0 and other countries 15'0; *Textiles, Silk*: Nearly all from Japan and China, then France, United Kingdom and other countries. *Silk mixed*: more than half from France, then Germany, Belgium, Italy and United Kingdom. *Other sorts*: United Kingdom first, Austria Hungary second. "*Motor Cars and Cycles*": United Kingdom 52'9, Belgium 6'1, France 1'7, other countries 2'7.

These Imports are distributed as per the following table (No. II), to the different Provinces in India, which are enumerated in the order of their importance:—

TABLE II.
TABLE OF IMPORTS.

	Bengal.	Bombay.	Burma.	Eastern Bengal & Assam.	Madras.	Sind.
Beer and Spirits	1	2	3	6	5	4
Coal	5	1	2	1	4	4
Cotton Piece-goods	1	2	5	6	4	3
Hardware and Metals ..	1	2	3	6	4	5
Jute and Silk Piece-goods	3	1	2	6	5	4
Machinery and Millwork	2	1	4	6	3	5
Oils, Mineral.. ..	1	2	..	4	3	..
Salt	1	3	..	2	4	5
Sugar	1	2	4	6	5	5
Woollen Piece-goods ..	2	1	3	..	5	..
Gold and Silver { Private .. 745'5	365'6	2338'9	19'2	1'1	83'3	87'8
{ Government Lakhs ..						
		570'2				1'6

The following Table (No. IV) gives the same information as regards some of the Exports from each Province:—

TABLE III.
TABLE OF EXPORTS.

	Bengal.	Bombay.	Burma.	Eastern Bengal & Assam.	Madras.	Sind.
Cotton, Raw	4	1	5	6	2	3
Lakhs	38'3	1786'4	29'3	0'2	339'1	323'6
Cotton Manufacture ..	1	1	5	..	2	4
Lakhs	2'4	957'2	0'3	..	95'1	0'8
Gold and Silver Rs. ..	1	3	5	..	2	..
Lakhs	440'3	42'3	1'1	..	45'4	1
Indigo Rs.	1	3	..	..	2	..
Lakhs	39'6	6'7	..	..	16'4	2'4
Jute, Raw Rs.	1	2	..	2	3	..
Lakhs	1570'8	..	..	216'4	10'0	..
Rice	3	5	1	6	2	4
Tea	1	4	5	7	3	0
Wheat	1	2	..	..	..	1
Lakhs	9'9	71'6	..	..	..	833'1

Gold and silver was imported from the following countries, the amounts being shown in lakhs of rupees, *viz.*:—United Kingdom, Private, 1776'8, Govt., 609'7; Australia, 788'9; China, 472'4; Egypt, 248'9; Straits Settlements, 76'6; Arabia, 55'1; Turkey in Asia, 53'5; Ceylon, 35'5; Aden, 25'0; Mauritius, 23'5; Persia, 16'5; Bahrein Islands, 16'1; Natal, 15'0; East Africa, 10'1; France, 3'6. The exports of Gold and silver went to the following countries, *viz.*:—United Kingdom, 331'7; Bahrein Islands, 237'2; Ceylon, 46'6; China, 33'8; Mauritius, 32'0; East Africa, 22'6; Arabia, 22'0; Persia, 10'5; Siam, 9'0; Straits Settlements, 6'2.

MILLS AND FACTORIES.

The number of mills and factories in Table IV, are abstracted from Thacker's Indian Directory:—

TABLE IV.

MILLS, WORKS, FACTORIES, GARDENS, &c.	Assam.	Bengal.	Berar.	Bombay City and Presi- dency.	Burma.	Central India and Central Provinces.	Hyderabad, Deccan.	Kashmir.	Madras City and Presi- dency.	Mysore.	Punjab Fron- tier, Kashmir, Sind and Baluchistan.	Rajputana.	United Prov- inces of Agra and Oudh.	TOTALS.
Bone crushing Mills	6	..	5	..	..	..	..	7	..	..	..	..	18
Breweries	1	..	1	1	1	..	..	3	2	9	..	6	23
Carpets (exclusive of Jails)	1	..	..	..	3	0	1	7	..	13	27
Coffee Works	9	..	..	..	..	10
Coir Works	4	..	..	..	..	4
Cotton Mills	15	2	135	..	11	2	1	22	..	11	2	12	213
Do, Presses	1	17	51	..	8	1	..	13	..	12	5	20	118
Do,	14	35	..	11	4	..	55	..	17	2	20	109
Dairies (including Government) ..	1	5	..	20	2	1	..	..	9	..	5	1	11	55
Distilleries (including Government) ..	1	3	..	5	2	1	..	..	13	..	4	..	9	31

TABLE IV.—(contd.)

MILLS, WORKS, FACTORIES, GARDENS, &c.	Assam.	Bengal.	Berar.	Bombay City and Presidency.	Burma.	Central India and Central Provinces.	Hyderabad and Deccan.	Kashmir.	Madras City and Presi- dency.	Mysore.	Punjab, Frontier and Baluchistan.	Rajputana.	United Prov. inces of Agra and Oudh.	TOTALS.
Flour Mills ... ..	...	12	...	8	...	2	...	...	...	...	11	1	12	46
Glass Works ... ..	...	...	...	...	...	...	...	...	...	...	1	...	...	1
Ice and Aerated Water Factories ... ..	...	4	...	9	2	...	...	...	2	...	7	1	12	37
Iron Works, Engineers and brass foundries ... ..	...	12	...	9	4	...	...	...	...	10	6	1	7	49
Jute Mills ... ..	...	40	...	...	...	...	...	...	...	...	...	...	1	41
Jute Presses ... ..	...	20	...	...	...	...	...	...	1	...	...	...	...	21
Lac Factories ... ..	...	7	...	...	...	...	...	...	...	...	...	...	11	18
Oil Mills	1	37	2	1	4	4	...	...	14	...	1	1	6	71
Orchards and nurseries (including some Tea gardens).	...	...	(including Government and State gardens)	...	...	...	...	...	1	...	12	1	16	...
Paper Mills ... ..	...	3	4	1	...	...	...	...	...	...	...	...	1	9
Potteries, Brick and Tile ... ..	...	3	...	1	1	2	...	...	27	...	1	...	1	36
Rice Mills ... ..	...	3	...	...	17	...	...	...	7	...	2	...	4	33
Roperies ... ..	...	8	...	...	1	...	...	...	1	(some included in other facts).	...	...	...	10
Saw Mills (including some other works).	11	7	...	4	11	...	...	...	10	...	...	...	1	45
Silk Factories and Mills ... ..	...	65	...	3	...	(Pondicherry 2),	...	...	1	1	...	...	2	74
Soap Factories ... ..	...	2	...	4	...	...	...	...	1	...	1	1	2	11
Sugar factories and refineries, and cane Mills, carbonic acid gas and rum distilleries.	...	10	1	2	...	...	...	...	7	...	1	...	3	23
Tanneries and leather dyeing works	7	...	...	1	(including Army boot and equipment factories.)	...	...	...	6	...	1	...	10	...
Tobacco Factories	1	...	...	...	1	...	...	...	13	...	...	...	...	15
Wool Mills, including a Central Jail ... ..	...	...	...	4	...	...	...	...	2	...	2	...	1	9
MINES.														
Chromium ... ..	...	...	...	...	...	...	...	...	...	1	...	...	...	1
Coal and Mica	5	171	...	...	...	4	1	...	...	...	5	...	...	186
Copper ... ..	...	1	...	...	...	...	...	...	...	...	...	...	...	1
Gold ... ..	...	3	...	6	2	...	6	...	...	13	...	...	...	20
Lead ... ..	...	...	...	...	1	...	...	...	...	...	...	...	...	2
Lime stone, Surki and Tiles	2	4	...	...	...	7	...	...	...	...	1	...	6	20
Manganese and Magnesite ... ..	...	...	...	...	...	...	...	...	4	1	...	...	...	5
Petroleum Companies	1	...	...	...	8	...	...	...	...	...	...	...	...	9
Salt Mines ... ..	...	...	...	...	...	...	...	...	1	...	2	3	1	7
Saltpetre refineries ... ..	...	...	...	...	...	...	...	...	...	...	2	1	4	7

INDIGENOUS INDUSTRY.

Before enumerating the numbers engaged in industries and trades some of their peculiarities may be mentioned. Formerly each trade formed a caste, and children naturally followed the occupation of their fathers; this custom still obtains in a great measure, but technical schools and other influences are bringing out individual tastes and talents more and more, and in course of time these and many other "caste" rules and practices will die out, especially where they interfere with material progress. The *panch-Kalsi*, or five arts are;—The goldsmith; the carpenter, joiner and ploughmaker; the black-smith; the mason, found everywhere; and the brass workers who congregate mostly in towns. In Southern India these arts are exercised indiscriminately by the same caste, but they are broken up elsewhere. As a rule they use the rudest tools, and there is a fine field open to anyone who would give them similar articles of a better make, of more lasting character and at a slightly enhanced cost. A description founded on Mr. J. Worsley's monograph of the *lohar* or blacksmith's work in the Punjab, gives a fair idea of the ways of natives artisans in general. There is a *lohar* in every village who makes ploughshares, scythes, rakes, axes, common pots and pans, etc. He uses old scrap iron or disused rails bought up by a

local *bania* at auction, or from the Railway authorities, for Rs. 4 a maund. Occasionally he buys English bars or other merchant iron as being handier and involving less labour—for he does much of his hammering cold, to save his fuel, which is charcoal. His furnace is of mud and he only works to order, mostly in iron, although he sometimes welds steel edges on scythes, etc. The smith of the town turns out a much more finished and polished article, and is not always a *lohar* by caste, and he makes attempts to improve. There are two classes of these artizans, *viz.*, the independent man who works to order, and the shop or factory hand. The first makes knives, razors, scissors, buckets, nails, etc. His furnace is of burnt clay, partly underground. His fuel, charcoal, his bellows the usual double-handed ones, or a rough fan like a thermantidote with an underground conduit for the blast, and he does not make more than Rs. 15 a month, while his old scrap iron, or *kucha loha*, costs him from Rs. 4 to 7; his imported *pacca loha* Rs. 8 to 12, and his Ispah, an inferior brittle steel, Rs. 7 to 11 per maund. In shops they make iron and steel safes and tin-lined cash boxes, and all kinds of locks and padlocks. A lock made by a *lohar* at Marauli village in the Punjab "was so constructed that if anyone who did not know the secret tried to open it, he released a handcuff, which fastened on his wrist."

The extension of certain trades is sure indication of increasing prosperity; when he can afford it, the native first starts a *belati* or European umbrella; then *belati* shoes, and gradually replaces his earthen or iron vessels for brazen ones, and, when they can be procured, by those made of aluminium. Ceremonial purity is not in the way of this conversion. An earthen vessel that has been defiled cannot be purified and has to be broken up, a metal one can be made clean and need not be destroyed. This is a practical provision; in fact caste rule are eminently elastic and can by authority be modified to suit circumstances, as, for instance, in the case of railway travelling and the use of water from a public supply. It would be a fatal mistake to jump to the conclusion that caste can, therefore, be ignored: amongst self-respecting and respected natives, who have not abjured it altogether, it is as strong as ever, and is always worth studying in transactions with them. For instance, weavers are gradually rising in rank, and are classed according to their work, and in the following order:—Coloured turbans, ditto plain, coloured waistcloths, ditto, plain; hemp and flax workers are very low in the social scale—the hangman is always a worker in flax; the blanket weavers, curiously enough, raise a breed of small cattle. Spinning cotton-yarn, steeping and decorticating jute and other fibres by the native processes is eminently a domestic industry, and employs much of the women's spare time. There is a great lack of wholesome competition in these non-agricultural services among village communities, and they are mostly paid for in land and in grain: this of course, makes it almost impossible to value the income enjoyed by these craftsmen. Toddy drawers, cane workers, milk sellers, and silk weavers, cluster near towns. Thirty different occupations in villages, or connected with them, account for 90 per cent. of the whole number, the five hundred other occupations are followed by a population equal to that of Europe: a million of these are employed in the combined trade of preparing tobacco, betel leaves, and areca nut, for smoking and chewing. The distillers of country liquor are often Parsees: this industry might be largely extended and be very much improved if it were not for the fiscal difficulties in the way of distilling from molasses. The excise rules also prevent that cheap preparation of alcohol for industrial purposes which would give an inexhaustible amount of incredibly cheap fuel for motive power.

Allusion has already been made to the want of uniformity in Government reports—a glaring example of this is given in the table abstracted below, to which the following foot-note has been added:—"the groups which were shown in one part of the scheme in 1891 and in a different part in the present census have been transferred to the orders and sub-orders in which they have now been classed. The result is that the totals of orders and sub-orders for 1891 now shown differ in some cases from the corresponding totals in the census tables for that census" to the great bewilderment of the student and investigator. For instance "unskilled labour not agricultural" is put down as numbering 25,957,953 in 1891, whereas in that report "labourers, earth workmen, etc.," the nearest

heading to it, were put down as numbering 25,468,017, a small but irritating difference of 489,936

TABLE V. (1901)

OCCUPATIONS.

(R=rise, F=fall since census of 1891.)

	No.
Armlets, necklaces, etc., glass and lac bangles, beads and sacred threads (now under "Bangles, etc.")	548,829
Arms and ammunition, blasting powder, fireworks, swords, bows and arrows	49,556 r
Boat and ship builders, mostly carpenters, now under "Ships and Boats"	45,328 f
Books and Prints, exclusive of prison labour	94,227 r
Brass, copper, and bell-metal	390,326 f
Cane, etc., mat makers, leaf plate makers	1,290,061 f
Cart makers, mostly carpenters, now under "Carts, Carriages, etc."	43,469 f
Carters, pack animal drivers, etc, now under "Roads"	1,605,529 f
Carving and engraving, including children from the earliest age	60,790 r
Cotton, hand looms and spinning wheels	7 702,003 f
Dress, etc., tailors, dealers in cotton piece-goods, embroiderers	2,069,332 f
Earthen and stone ware, potters, hand mill-stone dressers, etc.	2,125,225 f
Engineers, draughtsmen and surveyors	100,700 r
Furniture	17,813 r
Glass and china ware	17 942 r
Gold, silver, and precious stones, gold and silver wire, lace and braid	1,768,597 f
Gums, wax, resins and similar forest produce, drugs, dyes, pigments, etc, now under "Drugs, gums, dyes, etc."	455,763 r
Harness, that is the embroidering thereof	15,561 f
Iron and steel makers and sellers	1,475,383 f
Jute, hemp, flax, coir-makers, rope makers	649,406 r
Labourers, earth workmen, etc., now under "Earthwork, etc., General Labour"	17,954,331 f
Leather, horn and bones, tanners, mostly villagers	3,241,935 f
Masons, mudwall makers, stone cutters, brick and lime burners, now under "Building"	1,579,760 r
Medicine, chemists, patent medicine vendors, quacks, etc.	520,044 r
Music, acting, dancing, & musical instrument makers	574,119 f
Paper, exclusive of prison labour	34,873 f
Post and telegraph, now under "Messages"	153,374 f
Railway plant, employed in railway workshops and Railway staff administration and working staff; now all included under "Railways"	547,356 r
Ships and boats, owners, fishermen, sailmakers, etc., now all included under "Water"	786,945 f
Silk, silk-worm rearers, workers in silk	399,569 f
Tin, converting kerosine oil tins, zinc, quicksilver and lead	76,098 r
Tools and machinery, including carpenters, etc.	317,756 r
Toys and curiosities	45,084 f
Warehousemen, weighmen, etc., now under "Storage and Weighing"	476,428 f
Watchmakers, clocks and scientific instrument makers	15,455 r
Wood and bamboo, carpenters, sawyers and dealers	2,499,531 f
Wool and fur blanket and shawl weavers, wool spinners, cloth sellers	393,848 f

This table shows a fall in numbers between 1891 and 1901 in twenty-two industries and callings numbering 56,649,558, of 11,418,111 of which "cotton" and "labourers" accounted for 8,632,149, and a rise in 14 numbering 3,956,920, of 994,268 of which "masons" and "tools" accounted for 274,964. It is difficult to account for these figures; machinery may have had something to do with it and plague and famine still more.

Besides the undertakings enumerated in Table IV, labour of sorts is employed in some 55 smaller establishments, viz., Aerated waters, Aluminium, Asbestos, Australian Boxes, Carbonic Gas, Charcoal, Colours and Varnishes, Crystal, Fibre Estates, Fibres, Glass, Grass Farms, Knitting, Lead Rolling, Mango Farmers, Matches, Metal Factories, Minerals, Oil Eucalyptus, Paint (metallic), Perfumers, Rhea, Stone Patent,

Textiles. Again there are of Bagmakers at Allahabad 1, and Cawnpore 2; Billiard table makers, 3 at Ludhiana; Carpet manufactories, 6 in jails; Carriage tyres, 1 at Meerut; Chemical works, 7; Coach builders, 48; Floor cloth at the Elgin mills, Cawnpore; Furniture, 36; Gunmakers, 5; Harmoniums, 2; Ink, 3; Iron safes, etc., 14; lithographers, 14; Rubber stamps, 18; and Watchmakers, 6.

Breweries.—In 1906 the Breweries produced gallons 5½ millions, of which nearly half was bought by the Commissariat for European soldiers, who also, with other Europeans, accounts for most of the other half. The imported beer amounted to galls. 5 millions.

There are 14 cardamom & pepper gardens, of which 11 are at Hassan (Mysore) and 3 in Madras. *Chinchona* (including Government gardens) is raised in 36 places, of which one is at Darjeeling and the remainder in Madras, tea being also planted in some of them. These are worked without profit, quinine being sold practically at cost price.

Coal.—It was raised as under in the following Provinces, 1901 and 1906 (thousands of tons): Assam 254,285.5; Bengal 5487.6—8617.8; Central India (Rewah State) 164.4—170.3; Central Provinces 191.5—92.8; Hyderabad 421.2—467.9; other Provinces or States, 116.9—148.9; Total 6635.7—9783.2; Consumed as follows:—Railways 2700; Bunker, 1000; Inland Steamers in Bengal, Assam and Burma 450; Mills, Cotton & jute, 1110; other industries and Domestic Consumption 2965. The Railway freights for distances over 1000 miles are Rs. 9 13a. per ton. About 100,000 persons were employed, one-third being women.

There are two *Cocconut* plantations in Madras and three devoted to fibre growing, one in Madras and two in Sylhet.

The 489 *Coffee* gardens and estates are distributed as follows: cinchona, pepper, and tea being also raised on some of these: Madras, 263; Mysore, 225; and one in Sylhet.

Cotton.—The mills contain 59,400 looms and 5,546,000 spindles, employing 211,000 operatives. 106 are exclusively spinning and 10 weaving mills, the rest being both spinning and weaving, and 26 of the total are worked by private proprietors. The capital invested and debentures issued are estimated at 17 crores of rupees. The outturn of yarn (excluding mills in native states) was in 1906-07, 581,378,000 lbs of counts 1 to 25, and 49,175,300 lbs. of counts above No. 25—a total of 630,553,315 lbs. The continued increase in the production in the higher counts of yarns has risen from an average of 20 millions lbs. in the years 1896 to 1901, and is now 8 per cent. of the total. The outturn of yarns numbers 31 to 40 increased 12½ million lbs. in 1901-02 to lbs. 17 millions in 1906-07. The imports of yarn are about 6 per cent. of the total Indian production, being Nos. 1 to 25, 2,538,600 lbs.; above 25-32, 2,070,090 lbs.—total 34,609,500 lbs. In weaving there is a very decided tendency to increase the output of the finer fabrics. The outturn was of grey goods 29,599,300 lbs.; of other kinds 29,402,200 lbs.; a total of 159,001,500 lbs. The area under cotton in 1906-07 was estimated at 22,344,000 acres and the yield, in bales of 392 lbs. at No. 4-908,000.

Indigo.—In spite of the competition in cheap aniline dyes, there are still 411 factories in existence, and it is expected that in consequence of the research work undertaken at Sirsa and Pusa, improved cultivation will result in a great cheapening of the product. The factories are distributed as follows:—Allahabad, 2; Azamgarh, 9; Bankura, 2; Bhagalpur, 15; Bulandshahr, 1; Cawnpore, 1; Champarun, 59; Etah, 4; Fyzabad, 2; Gorakhpur, 11; Jaunpur, 7; Madras, 2; Maldah, 5; Meerut, 1; Midnapur, 4; Monghyr, 30; Murshidabad, 15; Nadiya, 15; Partabgurh, 12; Purneah, 33; Sarun, 38; Shahabad, 18; Shahjehanpur, 2; Sultanpur, 2; Tirhoot, 128.

Jute.—The spinning and weaving of jute used to be done by hand labour, the fabric being used for the clothing of the poorer classes. This industry was checked by the importation of cheap European cotton goods and was diverted into the making of gunny bags. The first power mill was started near Calcutta in 1857, and there are now 25,000 looms and 520,000 spindles worked by 167,000 operatives, the numbers having doubled in the last ten years. The capital invested in the mills (including debentures) is over 1170 lakhs. Jute is now manufactured in Germany and in the United States, as well as in Dundee, where half the number of looms have absorbed a capital of 750 lakhs and where the consumption of raw material is only one-sixteenth of that used in India. In this country the outturn is chiefly in coarse goods, whereas the Scotch mills are engaged in finer work and their looms are adapted to a much greater variety of cloth.

Jute is chiefly grown in Bengal, but also in Behar, Madras, and Nepal: the average in thousand acres and the outturn in thousand bales of 400 lbs. each in Bengal, was—in 1891, 1403.4 acres, and 5717.4 bales: in 1907, 3883.2 acres, and 9,585 bales, besides 140.0 bales in Cooch Behar, Nepal, Madras and Upper India. Prior to 1825 jute imports into Europe were confused with hemp. In 1832 a Dundee manufacturer used it as a substitute for hemp, and the trade was then started, being practically an Indian monopoly.

Oil-seeds.—The area and yield of the main oil-seed crops were as follows in 1906-07: in thousands of acres and tons; rape seed 4196.5a., 1073.6t; linseed 3028.2a., 422.3t; sesamum 3101.0a., 420.6t; ground nut 601.4a., 229.0t.

Opium.—The cultivation and sale of opium is under Government regulation in British India, and a heavy duty is imposed on all opium exported from Native States. Towards the end of 1906 edicts were issued by the Chinese Government with the object of suppressing the use and growth of the drug in China within ten years. In consequence the total quantity (including Malwa) of opium exported from India beyond sea was limited to 61,900 chests in 1908, 56,800 in 1909, and 51,700 chests in 1910: any further reductions depending on whether China has effected a proportional reduction during that period.

Paper.—The mills employ 4,700 hands and produced lbs. 47½ millions valued at over 63 lakhs. They supply foolscap, blotting-paper, note-paper to the Government Offices, but the industry is checked by the competition of cheap wood-pulp paper from Europe. At present only 45 per cent. of the paper used is made

in the country, but there is no reason why the manufacture of wood-pulp paper should not be successful in India.

Of eight *Pepper* gardens, in which some coffee is also raised, there are four each in Madras and Mysore.

Rice.—The area under cultivation in acres, and the yield in tons of cleaned rice, were estimated as follows in 1906-07:—Bengal, 24,506'2a., 9,773'1t.; Eastern Bengal and Assam, 16,105'8a., 6,123'8t.; Madras 6,934'9a., 2,519'8t.; Lower Burma 6,988'6a., 2,840'3t.

Tea.—The 1479 Tea Gardens and Estates are distributed as under, fruit and coffee being also raised in some of them:—Andaman Islands, 1; Assam, 503; Cachar, 168; Chittagong, 26; Chota Nagpur, 24; Darjeeling, 120; Dehra Dun, 32; Dooars, 117; Kangra, 101; Kumaon, 48; Madras, 141; Sylhet, 153; and the Terai, 46.

Since 1885 the area has increased by 86 per cent., and the outturn by 236 per cent., the figures for 1906 being 533,300 acres and 240,849,900 lbs. The capital engaged is nearly 22 crores of rupees, exclusive of private capital; employment being given to 570,600 persons. The percentage of tea imported into the United Kingdom in 1885 were Ceylon, nil; China, 93; India, 2; in 1906, the figures were Ceylon, 33; China 4, India 57.

Rubber.—There are 20 *Rubber* plantations, 19 in Madras, and one in Burma.

Salt.—The rate of duty on salt has been gradually reduced from Rs. 3-12a. to Re. 1, and the consumption has risen accordingly from 360 lakhs of marud in 1901-02 to 443 lakhs in 1907-08. The duty is levied on salt at the port of importation or at the places of manufacture: this must be where the collection of duty is practicable. The local sources of supply are the Southern and

Western coasts, which supply Burma and Central India, the salt lakes and pits of Rajputana, which supply the United Provinces; and the Punjab salt mines which serve the province and a considerable area round it. Bengal and Burma used most of the imported salt.

Sugar.—The area in acres and the outturn in of tons was roughly estimated to be in 1906-07, as follows:—Bengal, 423'5 acres, 419'3 tons; Eastern Bengal, 199'9a., 193'5t.; Madras, 52'5a., 100'4t.; Punjab and North-West Frontier Province, 286'2a., 245'6t.; United Provinces, 1386'7a., 1,268'6t., these figures representing 95 per cent. of the output, exclusive of the Western States. The Imports in thousands of tons were: Austria-Hungary (beet), 80'9; China (cane), 2'6; Germany (beet), 100'1; Java (cane), 206'8; Mauritius (cane), 139'9; other countries, 25'1.

Wheat.—The area of wheat in 1906-07 was nearly 29½ million acres, yielding 8½ million tons, as against an average of less than 25½ million acres and 7½ million tons during the previous five years. Wheat export fluctuates greatly according to the various local demands, which depend on the amount of rainfall.

Wool.—The mills contain 759 looms and 27,100 spindles, employing 3,400 operatives. An admixture of Australian wool is used in manufacturing the blankets, cloths, and serges worn by the army and the police. The produce of these mills represents only a small proportion of the trade in woollen goods: the weaving of carpets and rugs is done on hand looms in small factories, the aggregate output being very considerable, as the local demand, excluding the exports, is important.

Table No. VI gives the total Imports into and Exports from ports in five Provinces for the year 1906-07, including Government Stores.

TABLE No. VI.

IMPORTS INTO	Bengal.	Bombay.	Burma.	Eastern Bengal and Assam.	Madras.	Sind.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Ports within Province: Indian ...	48,80,571	3,30,97,545	81,05,048	1,31,952	1,08,15,521	1 24,771
Do. do. do. Foreign ...	7,79,243	37,72,682	74,76,014	15,24,060	6,15,393	4,08,911
Ports without Province: Indian ...	8,62,49,370	11,87,38,006	6,71,02,091	2,80,98,684	5,34,02,757	3,62,74,925
Do. do. do. Foreign ...	39,44,921	26,47,641	53,66,182	15,36,081	88,70,837	1,55,54,741
TOTAL ...	9,58,54,105	15,82,55,874	8,80,49,335	3,12,90,778	7,37,04,508	5,23,63,348
EXPORTS FROM	Bengal.	Bombay	Burma.	Eastern Bengal and Assam.	Madras.	Sind.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Ports within Province: Indian ...	50,22,529	3,19,18,382	76,31,858	2,10,352	1 09 61,658	4 26,092
Do. do. do. Foreign ...	7,20,70,774	7,24,95,468	11,64 41,359	41,41,103	4,23,47,668	2,24,15,690
Ports without Province: Indian ...	12,07,861	39,99,008	80 45 791	5,917	6 31,096	1,18,680
Do. do. do. Foreign ...	79,63,590	3,81,33,431	20,30 858	1,14,914	13 92 143	40,34,601
TOTALS ...	8 62 64,754	14,65 26,289	13,41 49 866	44,72,286	5,53,72,765	2,69,95,063

To these have to be added the foreign land trade, mostly with Afghanistan, Kashmir, Nepal and the Shan States, *viz.*—Imports, Rs. 9,91,35,000, and Exports, Rs. 7,876,5,000.

EARLY TRADERS.

From time immemorial India has been a trading country, not only amongst the states composing it, but, from the earliest recorded times, with foreign countries. Sir George Birdwood has recorded the voyages of fifteen navigators between 1245 and 1508. The Hakluyt Society have a collection of works describing voyages to and from and within India, from that of Friar Jordanus in 1330 down to that of Alfonso Dalboquerque in 1774. These are overlapped by Sir George's Report on the Miscellaneous Old Records in the India Office, covering the period from 1643 to 1817. Besides these mention should be made of Berniers expedition, and of "the six Travels of John Baptista Tavernier, Baron of Aubonne through Turkey and Persia to the Indies during the span of forty years; made into English by J. P. London, 1682, published by Moses Pitt, at the Angel, St. Paul's Churchyard, 1684." Some of the trading therein mentioned has died out, for instance it is recorded that "There is no steel but that of Golconda that can be Damasked.... The Seal-skins and Goatskins which are dress in Persia are transported by the Hollander into India and Japan.... The Ronas that famous root... is transported all over India, where there is also a great vent of Persian fruit, pickled in vinegar and also of their sweet waters.... Great store of Quinas candied, and boxes of Marmalade made at Balsara, are thence transported into India, where they are bought up by the Mahometans and Portugueses.... for the Baniyas will eat none for fear they should by accident bury a fly in their stomachs" Tavernier warns one that "there is no sailing at all times upon the Indian seas: you must observe the proper season which being elaps'd, there is no more venturing." That this was so traders found to their cost till the advent of steam. "Formerly only the Hollanders and the English understood the course of navigation" (to and from Ormuz to Surat)," but some years after the Armenians, Mahometans, Indians and Baniyas have built their vessels. But is not so safe to embark in them." The customs duties at Surat amounted to 4 or 5 per cent., to avoid them the English hid their Jacobuses, Rose Nobles, and Ducats in the net of their periwigs;—the river ferry boats were made of osier, covered over with an ox hide. "The trade of Tata (one of the greatest cities in India, a little above the mouth of the Indus).... begins now to decay, the sand hills having almost choked it up." Its glories have entirely departed at the present time. Tavernier's knowledge of decimals, or that of his translator, must have been elementary, witness the monetary table found in the volume:—A Mamoundi = 40 copper Pechas: 49 to 55 Pechas = a silver rupee, according to the proximity of copper mines: 50 to 80 cori, according to the proximity of the sea, = a Badu; 35 to 40 badu (or bitter almonds) = a Pecha: 100,000 rupees = a Lekka: 100,000 Lekka = one Kraur: 100,000 Kraur = one Padan: and 100,000 padan =

one Ril. This astounding amount would be represented by Re. 1 followed by twenty naughts, or Rs. 100 trillions, enough to give nearly one million rupees to every man, woman and child on the globe. Probably the decimal point is omitted, in each multiple, after the first two naughts. "All the Jews that deal in money and Exchange in the Empire of the Grand Seignior are accounted most subtil sort of people. But in the Indies they would be scarce thought fit to be apprentices to these Bankers or cheraff." A great compliment to the Shroffs from such a shrewd trader as Tavernier, who found kindred spirits among the Grandees of the Indies; their greatest trade, he reports, is to venture their money by sea from Surat to Ormuz, Balsara, Achen, and the Philippine Islands. He found the manner of travelling more commodious than anything that has been invented for ease in France or Italy; the load of the oxen was from 300 to 350lbs. in droves of 10 to 12,000, making a total load of from 37,000 to 52,000 maunds. They "carry corn where only rice grows, rice where only corn grows, and salt where there is none at all." There were four tribes of Manaris each of 100,000 souls; they "live only upon the transporting of merchandise from country to country. The first of these tribes carry nothing but corn, the second rice, the third pulse, and the fourth salt, which they fetch from Surat and all along from as far as Cape Comorin. At that time Goa traded by water with Batavia, Japan, Bengala, Ceylon, Surat, the Red Sea, Ormuz, Balsara, etc., The following journeys are recorded by Tavernier:—Ispahan to Agra, *via* Gomron and *via* Candahar; Surat to Agra, *via* Brampour and *via* Amadabad; Agra to Dacca; Surat to Golconda twice, once *via* Goa; Golconda to Masulipatam; Goa to Golconda and Agra to Delhi. Taking this last as a specimen of a "commodious" journey, the stages and cost thereof were:—Delhi to Badelpour Rs. 8, Pelveki-Sera Rs. 18, Cotki-Sera Rs. 15, Cheki-Sera Rs. 16, Goodki-Sera Rs. 5, Agra Rs. 6: a total of Rs. 68 as against an average of about Rs. 2 now-a-days. A caravan took three months from Patna to Bautan: eight days from Patna to Gorroekpour at the foot of the mountains, and eight days to cross them.

THE TREND OF EARLY TRADE.

In early days the commerce of India was mainly with countries to the Westward. The trade was carried by land and no money circulated. Later routes were discovered between the Indus and the Caspian or Black Sea, *via* the Oxus and the Hindu Kush, but the cost was so great that only articles of small bulk but of great value could be carried profitably. The sea traffic developed, and by about 800 B.C., it was established with China and with the Persian Gulf, from the head of which caravans reached Egypt and Syria *via* Mesopotamia, carrying more bulky articles, such as sandal wood and rice: peacocks were also exported. It was not till about 850 years later that the use of the monsoons was appreciated by one Hippalus who opened the Red Sea route and traded in cotton goods, spices, and precious stones, exchanging them for the precious metals, brass,

copper, tin, lead, cloth, and coral, to the value of nearly Rs. 46,00,000 a year. These three routes remained available for over 1,500 years. After the landing of Vasco de Gama at Calicut in 1498, he, and his countrymen the Portuguese, gradually routed the Arabs, and by establishing fortified factories, commanded the Red Sea from Ormuz and the Malabar coast from Goa. Merchants from Ceylon and Malacca had been in the habit of meeting those from the Gulf and Red Sea at the harbours and roadsteads along the coast. The export trade in art products, drugs, dyes, gems, perfumes, spices and textiles, was now secured, being paid for mostly in silver, but also in chemicals, glass, hardware, linen, velvet, and woollen goods.

THE ENGLISH COMPANIES.

The Portuguese held the monopoly under a Papal bull but were gradually displaced by the Dutch, and in 1581 and 1593 an English Company was authorised under a charter to trade with India by land. The Portuguese had degenerated into pirates.

In order to counteract the Dutch monopoly, an English East India Company was founded in 1600. They traded with the "Spice" Islands, and in 1608 first visited Surat, which soon became their headquarters and the mainland. After a good deal of fighting the Dutch cleared the English out of the Islands; the latter then established themselves in India, founding factories on both coasts and in Bengal, and increasing their trade rapidly in spite of all opposition, in which the French took part after 1700. Although for some years the Company had only possessed five or six ships of 600 ton burden, yet in 1675 the exports from India amounted to Rs. 43 lakhs, and the imports to Rs. 86 lakhs besides private trade, and the dividend earned in 1682 amounted to 150 per cent. The Company was enlarged early in 1700, and a hundred years later the sales at the India House had reached three crores of rupees. They, however, dropped to 2½ crores in 1813, when the trading functions of the Company were brought to a close as far as India was concerned, although they continued for twenty years longer in China. Under the Manu code commerce had been taxed by a small annual imposition on traders and shop-keepers, and artisans and labourers had to give one day's labour a month. Up to this time the East India Company had had no such powers as it only existed on the sufferance of the native princes, but they now began to extend their territories and to consolidate their dominion over them, while sharing their sovereignty more and more with the Crown, and gradually dropping their mercantile functions and privileges. In 1858 their remaining powers were transferred to the Crown. Lord Clive was the first Governor of Bengal in 1758, and was followed by Warren Hastings, who became the first Governor-General of Fort William in 1774, under the Regulation Act 1773 which created that office and its council.

THE GOVERNMENT AND COMMERCE.

It was not till 1833 that the restrictions were abolished on the residence of British subjects in India, and only in 1905 that a Minister of Commerce was

appointed to deal with Factories, Petroleum and Explosives Acts, Postal and Telegraph business, Customs, Statistics, Printing and Stationery, Merchandise Marks Act, Ports and Shipping Trade, Merchant Shipping Act, Labour questions, Emigration to Foreign Countries and to Assam Tea Gardens, Collieries, Inspection and Working of Mines, Safety of Miners, Geological enquiries, Economic Products and Arts, and Patents. The Director-General of Commercial Intelligence prepares statistics, and is an intermediary between the Department and in the case of the British public, in a great measure through the Commercial Intelligence Branch of the Board of Trade at 73, Basinghall Street, London, E.C., where India has a room to itself, and where the work is now concentrated which was formerly done at the India Office by Sir George Birdwood, at the Imperial Institute, and to some extent by the London Chamber of Commerce. The other offices and officers affecting Trade more or less, are numerous. The Department of Military Supply has the procuring and custody of stores, ordnance, and remounts, and is the main *raison d'être* of the London Stores Department, through which also, nearly all the material for the State and Railways have to pass and which undertakes orders for any other public bodies. This Department is supposed to act as a check on the enterprising foreigner who might otherwise swamp the market with his goods through the energy of his local agents. There is a Board of Scientific Advice, composed of the Secretary, Revenue and Agriculture; the Surveyor-General of India; the Directors of the Geological and Botanical Surveys; the Inspectors-General of Forests and of the Civil Veterinary Department; the Director-General of Observatories; the Superintendent of the Natural History Section, Indian Museum; and the Reporter on Economic Products. There are Secretaries of Military Supply and of Public Works, Mint Masters in Bombay and Calcutta, a Director of the Pusa Agricultural Research Institute, an Agricultural Chemist and an Inspector of Mines.

The Government of India is intimately connected, for good or evil, with every step taken to further Trade and Commerce in the vast dependency over which it rules; it, therefore, behoves every one interested in this matter to have some knowledge of the system under which India has prospered. The Secretary of State for India is a Member of the British Cabinet and represents, while being responsible to, the Imperial Parliament. With the assent of a majority of his Council of 14 (of whom two are natives of India), the Secretary has to sanction all expenditures from the revenue of India. In matters of foreign policy he need not consult his Council and he may overrule the majority. He imposes his orders on all matters on the Government of India, and all the business is transacted at the India Office in the first instance.

In India the Governor-General, or Viceroy, the Governors of Bombay and Madras, the Commander-in-Chief, the ordinary Members of the Governor-General's and of the Governors' Councils, and also the Judges of the High Courts, are appointed by the King-Emperor.

The Governor-General, subject to the Secretary of State, is the supreme executive authority in India, both in Civil and in Military matters. His Executive Council consists of six ordinary members and one extraordinary member, the Commander-in-Chief. There are Executive Councils of two Members each under the Governors of Bombay and Madras. Sixteen "additional Members for making Laws and Regulations" are appointed by the Viceroy for legislative purposes. There are Legislative Councils in Bengal, Bombay, Burma, Eastern Bengal and Assam, Madras, the Punjab and the United Provinces of Agra and Oudh, on all these Councils the natives of India are largely represented. Every Indian Act requires the Viceroy's assent, but the Secretary of State may disallow it.

Courts of Wards have been established in most of the larger Provinces: their duties are to manage the estates under their charge in the interests of both proprietors and tenants; to support the family of the proprietor, to educate young wards, to pay off debts due by the estate, and to spend the surplus income in the best attainable way on the improvement of the property.

The Local Governments are:—*Major*: Presidencies, Bombay and Madras: Lieutenant-Governorships, Bengal, Burma, Eastern Bengal and Assam, the Punjab, United Provinces of Agra and Oudh. Chief Commissionerships, Central Provinces and Berar. *Minor*: Chief Commissionerships, Ajmere-Merwara (of which the Chief Commissioner is also agent to the Governor-General in Rajputana States), Andamans, British Baluchistan, Coorg, North-West Frontier Province, and Sind, which was added to Bombay in 1843. These local Governments have a large measure of financial and administrative independence.

There are five large Native States in direct political relations with the Government of India, viz.:—Baroda, Hyderabad, Kashmir and Jammu, Mysore, and Nepal. The Agencies of the Governor-General in other Native States are as follows:—*Central India*:—148 States (of which 137 are minor), including Bhopal, Gwalior, Indore and Rewah. *Rajputana*:—20 States (of which 7 are minor), including Bharatpur, Bikaner, Dholpur, Jeypur, Jodhpur and Udaipur. There are also many Native States in political relations with the respective local Governments, as follows, viz.:—*Bengal, Eastern Bengal and Assam*:—56 States (of which 21 are minor and 25 are Khasi in Assam), including Cooch Behar, Hill Tipperah, Manipur and Sikkim. *Bombay*:—354 States (of which 242 are minor) including Cutch and Kolhapur. *Burma*:—52 States, all in British India, except 5 Karen States which form *Karenni*. *Madras*:—5 States (of which 2 are minor), including Cochin, Pudukkottai and Travancore. *Punjab*:—34 States (of which 25 are minor), including Bahawalpur, Kapurthala, and the Phulkian States, viz.:—Jind, Nabha, and Patiala. *United Provinces*:—2 States, Rampur and Tehri (Garhwal).

There are 267 Districts, the executive heads of which are the Collectors, Magistrates, or Deputy Commissioners, subordinated generally to a Commissioner who corresponds direct with the Provincial Government.

Local Self-Government is carried on by Municipal and Cantonment Committees, by District and Local Boards, and by Port Trusts, whose income in 1906-07 amounted to over 5½ crores of rupees. There are 749 municipalities in India; their receipts in 1906-07 amounted to Rs. 881.9 lakhs, and their expenditure to Rs. 866.5 lakhs. There are 93 Cantonments and Military Depôts,* the income of their committees being Rs. 35.8 lakhs. There are 193 District and 517 Local Boards, besides 382 Union Panchayats in Madras, a total of 1,092, whose united income amounted to Rs. 31.7 lakhs, and their expenditure to Rs. 30.2 lakhs. There are 5 Port Trusts whose united income was Rs. 231.6 lakhs and their ordinary expenditure Rs. 206.2 lakhs, besides Rs. 223.1 lakhs on Capital Account. The total receipts of all the various local bodies was Rs. 1256.8 lakhs, nearly 80 per cent. of which was spent on public works.

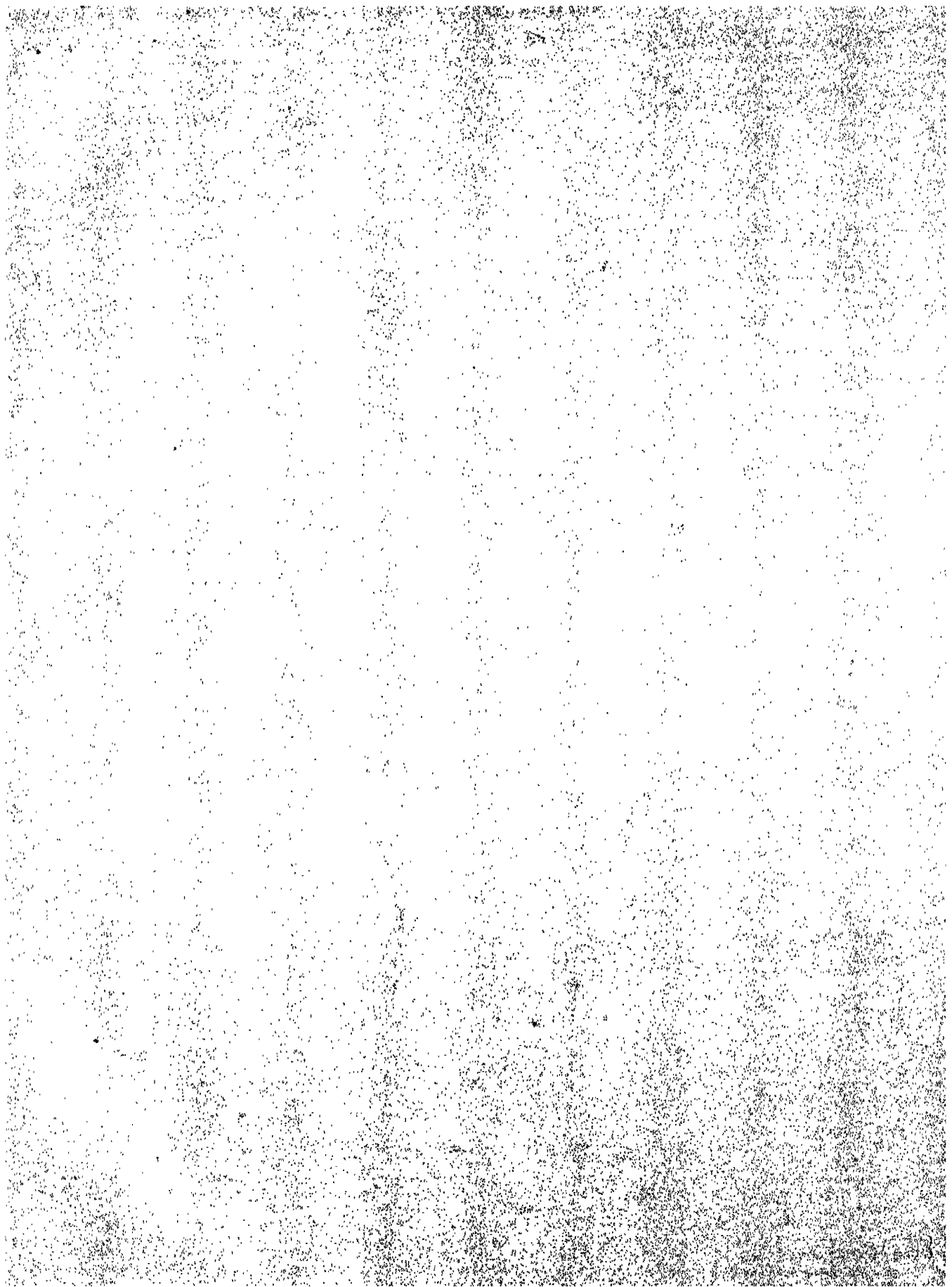
The burden of *taxation* in British India is under Re. 1-7 *per capita*, and including land Revenue is under Rs. 2-10. Income Tax is levied on non-agricultural incomes of Rs. 1,000 to Rs. 2,000 at about 2 per cent. and above the latter at 2½ per cent.

Excise fees and duties are levied on intoxicating liquors and drugs. The export duties on rice yielded (at 3a. per maund), Rs. 115 lakhs and those on Indian cotton Rs. 27.0 lakhs, as against Rs. 133 lakhs levied on imported cotton.

Customs Duties:—Cotton goods (except yarn and thread) pay 3½ per cent. *ad valorem*. There are special duties on arms and ammunition; spirits generally pay Rs. 7 a gallon; Salt Re. 1 a maund; refined petroleum 1a. a gallon; iron and steel goods 1 per cent. Bounty fed sugar pays duties varying with the amount of the bounty given; Animals, Coal, Cotton (raw), Gold, Grain, Machinery, Manures, Oil-cake, Quinine, Stones, Tobacco (raw), Wool (raw), and a few other articles are duty free; mostly all other goods pay a duty of 5 per cent. *ad valorem*.

At the end of 1907 there were 1728 Joint Stock Companies in operation, with a paid-up Capital of nearly 42 crores of rupees (exclusive of about 5.7 crores of debentures issued), of which 40.5, 37.7 and 8.5 per cent. were invested in Bengal, Bombay and Madras respectively; the number of Companies being 387, 390 and 528, or in inverse ratio to the amount of Capital. The Capital was thus distributed (in lakhs of rupees); Banking and Insurance 450.4; Trading and Shipping 855.4; Mining and Quarrying 296.6; Mills and Presses 2035.5; Tea and Planting 353.1; other industries 192.5. Nearly 55 per cent. of the Mills and Presses were in Bombay Presidency.

* CANTONMENTS & MILITARY DEPOTS:—The stations are at the following places, viz.: Abbottabad, Agar, Agra, Ahmednagar, Ajmere, Alipore, Allahabad, Almora, Amballa, Aurangabad, Bakloh, Ballygunj, Bangalore, Bannu, Bareilly, Baroda, Barrackpore, Belgaum, Bellary, Benares, Bhamburda, Bolarum, Bombay, Cannanore, Cawnpore, Chakrata, Chaman, Dargai, Deesa, Dehra Dun, Dera Ismail Khan, Delhi, Deolali, Dharmasala, Dibrugarh, Dinapore, Dum-Dum, Erinpura, Ferozpur, Fort Sandeman, Fyzabad, Goona, Hyderabad, Jhansi, Jacobabad, Jhelum, Jubbulpur, Jalandur, Kampti, Karachi, Kasauli, Kherwara, Kila Derooh (Chitral), Kirkee, Kohat, Lahore, Lansdowne, Loralai, Lucknow, Madras, Malakand, Mandalay, Manipur, Mardan, Maymyo, Meerut, Meiktila, Mhow, Multan, Nasirabad, Neemuch, Nowgong, Nowshera, Pallaavaram, Peshawar, Poona (Head-Quarters, Southern Army), Quetta, Rajkot, Rangoon, Ranikhet, Rawalpindi (Head-Quarters, Northern Army), Roorki, St. Thomas' Mount, Samana, Saugor, Secunderabad, Sehore, Shillong, Sialkot, Sibi, Sirdarpur, Sirur and Vizianagram.



The Companies carrying on work with sterling Capital exclusively, or almost so, in India, but which are registered elsewhere, numbered 165, with a paid-up Capital of about 103½ crores and with debentures issue of over 41½ crores distributed as follows :— (in lakhs of rupees) Railways, Capital 6528·7; Debentures, 3704·1; Tea, Capital 1827·5, Debentures 186·1; Cotton Mills, 12·47; Jute Mills 360·6; Rice Mills 140·2; Gold Mines Southern India) 353·0; Mining and Quarrying 719·4.

Patents :—Of the 620 applications, 65 were made by natives of India, 144 by others residing in the country, 194 from the United Kingdom, and 217 from other countries. They were mostly for bicycles, chemical appliances and preparations, electrical contrivances, railway materials, tea manufacture, spinning and weaving machines.

PROVINCES AND STATES.

AJMERE-MERWARA.

Ajmere-Merwara :—Area 2,711 square miles, containing 4 towns, 740 villages, and 477,000 inhabitants, mostly Hindus. It is surrounded by Native States and occupies the crest of the Rajputana watershed. Water supply is scarce, and artificial irrigation is mostly required; it is much subject to famines. Ajmere, the capital, contains 73,839 people, and a separate temple to Brahma at Pokhur in its vicinity. There is a British Cantonment at Nasirabad, and an important cotton mart at Bewa. The birth rate in 1906 was 28·9, the death rate 32·2. There were 8 Rural Co-operative Credit Societies with 186 members.

ANDAMAN AND NICOBAR ISLANDS.

Andaman and Nicobar Islands :—Area 3,143 square miles, containing 46 villages and 24,649 inhabitants, mostly Hindus and Animistic. They form a chain of Islands in the Eastern part of the Bay of Bengal. In the Andamans there is a convict settlement and a magnificent harbour, Port Blair, in which the whole British Fleet could ride at anchor. The Nicobars lie to the South of the Andamans, their principal products being cocoanuts; they also possess a good harbour, Nancowry. Fine timber is found in all these islands, and indications of an extensive coal-bed, while good pasturage is to be had. There were 14,696 convicts in the settlement on March 31, 1906, of whom only 715 were females. The revenue was Rs. 9·1 lakhs and the expenditure Rs. 21·9 lakhs.

BALUCHISTAN.

Baluchistan :—Area 131,315 square miles, containing 2,054 villages, and 810,746 inhabitants. These figures apply to both the Districts and Administered Territories and to the Agency Tract. British Baluchistan includes the assigned districts of Sibi, Pishin, Thal-Chotiali, Quetta, Nuskhi, Zhob, Chagai, Nasirabad, and the Bolan; the remainder belongs to the Rulers of Khelat and Lus-Beyla. It is mostly peopled by Afghans, who are Suni Muhammadans, and 44 per cent. of the inhabitants lead a nomad, pastoral life, the Quetta district being fertile and well-watered. Manganese has

been discovered in the neighbourhood of Lus-Beyla. The boundary with Afghanistan was demarcated in 1896-7, and the railway from Ruk in the Indus Valley runs through Sibi and Bostan to Chaman on the Afghan frontier, within 70 miles of Kandahar. Between Sibi and Bostan there are two lines, one *via* Sibi and the Hurnai Pass, and the other *via* Quetta with branches from the Bolan Pass to Rindli and from Quetta to Nushki. This latter opens out the trade route from India to Seistan in Persia which was established in 1896, and has now so developed that in 1907-08 the value of the goods passing over it amounted to nearly Rs. 23 lakhs, or 82 per cent. more than in the previous year. Moreover the troubles in Persia did not check it. Other projected railways on the frontier are from Ghazi-Ghat to Dera Ghazi Khan and from Larkhana to Shahdadpur.

BARODA STATE.

Baroda State :—Is ruled by a Maharaja or Gaekwar, is 8,009 square miles in area, and contains 47 towns and 3,035 villages, with 1,952,692 inhabitants, of whom 469,000 are urban. It is the premier Hindu State, is non-tributary, and its ruling Princes exercise the power of life and death. Baroda, the capital, contains 103,790 inhabitants and is the centre of a network of railways, some of which have been constructed by the State; it also has direct communication by broad gauge rail with Bombay to the South, and with Central India and Calcutta in the East, while metre gauge lines connect it with the Punjab and the North generally. Ahmedabad had a population of 185,889 in 1901, and a death rate of 52·09 in 1906. The soil is generally fertile and produces some of the best cotton.

BENGAL PRESIDENCY.

Bengal Presidency :—Area 115,819 square miles, containing 142 towns and no less than 137,489 villages, with 50,722,000 inhabitants, of whom 78 per cent. are Hindus, and only 5 per cent. live in towns. The province divides itself geographically into four great districts; the combined delta of the Ganges and Brahmaputra on the south, Behar on the north of the delta where the plains of the Ganges are drier, the delta of the Mahanadi on the south-west of the Ganges seaboard, forming Orissa, and Chota Nagpur a mountainous district abutting on the Central Provinces. The last two districts are subject to drought.

There are 100 estates under the Court of Wards, the receipts of which amounted (in lakhs) to 166·4, and their debts to 223·5, of which 61·0 represents the debts of the Bettiah estate and 49·4 those of the Banaili estate in Bhagalpur.

Municipalities.—The Calcutta Corporation consists of 25 elected and 25 nominated Members; 13 out of the 50 form a general committee with executive powers. In the interior there are 128 municipalities with 6,493 ratepayers, and 30 of them together owed Rs. 36,25,500, of which Howrah owed more than half. The average incidence of municipal taxation over the whole province amounted to Rs. 15-11. The water-rate was in force in 13 and lighting-rate in 4. The Receipts of the Calcutta Corporation were

(in lakhs of rupees) 87·6; the expenditure 96·1.

Boards:—There are 29 Districts and 78 Local Boards, besides 49 Union Committees (with an aggregate income of Rs. 18,600). The income of the Boards apart from the head of "Deposit and Advances" was Rs. 64·2 lakhs, including a Government contribution for civil works of Rs. 9 lakhs. The expenditure was Rs. 75·4 lakhs, of which Rs. 43·8 lakhs was chiefly on roads. There are four successful light railways constructed under the guarantee of the Boards, and several others are proposed. Considerable progress is being made with feeder roads to railways. The District Boards have done better than the local ones. The Receipts of the District Municipalities were (in lakhs of rupees) 52·6; the expenditure 51·4.

The exports of Jute for the last three years were 711,800 tons, valued at Rs. 1,686·5 lakhs in 1905-6; 704,460 tons in the next year, valued at Rs. 2,412·5 lakhs; and in 1907-08, 630,117 tons, worth Rs. 1,570·8 lakhs, exclusive of gunny bags and cloth.

The figures for Tea (exclusive of tea waste) in the three years were 199·7 million lbs., valued at Rs. 800·9 lakhs; lbs. 175·8 and lakhs 737; and lbs. 167·8 and lakhs 767·0 respectively. The principal other productions are shown in Tables 2, 3 and 4. The birth rate in 1906 was 37·3, the death rate 36·1. There are Co-operative Credit Societies, urban 8 with 725 members, Rural and Grain, 210, with 14,583 members.

Calcutta is not only the Provincial Capital, but is also the seat of the Imperial Government in the cold season. In the hot season there is an official migration to the Hill Sanatoria. It contained in 1901, in the suburbs and Howrah, 1,106,738 inhabitants. Its death rate in 1906 was 35·7. The city is well supplied with water and has had a system of drainage for many years. Electric current is in great demand for power and lighting and ventilating purposes, and its electric tramways are worked on the overhead trolley system.

The number of ships that cleared from Bengal in 1907-08 was 526 of 1,466,349 tons burden, mostly from Calcutta. The chief imports and exports into and from that town in 1906-07 were by rail and river (in tons) coal and coke 5,353,013 and 102,963; cotton goods, export only 104,986; grain and pulse 799,962 and 413,019; jute all goods, 1,123,048 and 97,305; metals, export only and including manganese ore, 170,306; oil and oil seeds, 311,048 and 28,585; salt export, 394,585; imports by sea nearly 142,000 (the consumption *per capita* being 13·5 lbs. in Orissa and 11·216 elsewhere), saltpetre, import only 28,421; sugar, 14,266 and 320,742; tea, 76,298 and 839; tobacco, 19,851 and 7,575; wood, import only 117,814, and treasure (ounces) export only gold, 417,805, silver, coin and bullion, 64,108,919, mostly from the Mint. Bengal is well provided with railways which converge from all parts on the capital, but the rail traffic is much handicapped from want of bridges across the big rivers both in Calcutta itself (where there is only a floating bridge for road traffic) and to enable the railways on the left bank of the Ganges to cross the river, and still more by the want of rolling stock and additional tracks. The city is encircled by a railway, and there is access to it by the river from the

sea, and by canal from the Sunderbunds in the east. An ever-extending system has been established of jetties on the river Hughli and of docks stretching towards the Mutlah river with which in the writer's opinion they will be connected some day. The port is in charge of a Trust, the magnitude of whose operations may be gathered from the following figures:—

It is stated by the Port Commissioners that in 1907 their income was (in lakhs of rupees) 100·1, their expenditure 98·1, less 26·2 set aside as Revenue and Reserve and 3·4 carried forward. The capital expenditure was 104·4. The capital debt amounted on March 31, 1907, to 597·0, and the assets to 806·3, exclusive of increased value of land and of the Strand bank and the Howrah fore-shore. The sinking fund amounts to 58·7. A scheme for further accommodation for vessels has been approved as 50 per cent. of the import cargo steamers were delayed for want of jetty berths. A dredger lifting 5,000 tons of sand an hour has been set to work on the James and Mary shoal; 186·815 tons of imports, including sleepers 38·361 and sugar 93·654, and 3·796·404 tons of exports passed over the dock quays. 903 vessels were berthed in the wet dock, 155 in the dry dock and 224 at the jetties. There passed through the docks the following percentage of the goods handled, *viz.*:—coal, 95; cotton, 67; hides, 60; jute, 54; rice, 23; tea, 85; and wheat and seeds, 63. In 1895-96, 347,909 tons were received and despatched by the Commissioners' railway, in 1905 565,394 tons were handled. A project for canalizing Tolly's Nullah is under consideration. The local authorities have complained bitterly for many years of the shortage of railway wagons.

The Corporation, the Port Trust, and the Bengal Chamber of Commerce have all urged the necessity for improving the sanitation of the congested areas in the city, and their recommendations with regard to the financial and administrative details of the Board of Trustees are being considered; the Board having been sanctioned in 1905. The expenditure on street improvements and attendant measures is estimated at about Rs. 825 lakhs to be spread over 20 years. Drainage and water-supply have been engaging the attention of the municipalities for many years past; in 9 municipalities there are complete water-works. Patna, a city of 134,785 inhabitants, has always been well to the fore in these matters.

As will have been gathered from the Tables, the chief products of the Province are coal, of which $\frac{3}{8}$ ths of the whole Indian output are mined in the Raniganj and Jherriah coalfields, fibre and other vegetable products. Iron ore has been mined and worked at Barakar for many years, but has only lately received substantial support by means of orders for the State Railways. Gold and diamonds have also been found in Chota Nagpur.

The cultivation of *opium* is being restricted. In 1907-08 there were 642,831 acres under poppy; this has been reduced by Government to 500,000 acres in 1908-09. The number of chests sold in 1906-07 was 52,800, only 45,900 are to be sold in 1908-09.

The wealth which used to be hoarded up or lent at usurious rates is now being gradually turned into more profitable channels, and native men of substance

are putting their capital into industrial enterprises in increasing numbers. This, while making the country self-supporting in some directions will, by increasing the general prosperity, increase the wants of the people for goods other than what will be produced by them for many years to come. Every step in that direction will therefore be one towards the development of trade and commerce in general. A notable instance of one important step in the venture is at Kalimati, 17 miles from Sini Junction on the Bengal-Nagpur Railway, and 153 miles from Calcutta, where the Tata Iron and Steel Works are being established. Messrs. Tata & Sons have formed a Company with a capital of Rs. 23,17,500 mostly privately subscribed by the Parsis in Bombay, and machinery will be installed and blast furnace erected capable of a very large outturn of iron and steel bars, plates, and goods of every description. The works will have connection by rail with the main line by branches 40 miles in length.

Receipts from *Land Revenue* 486.3, expenditure 75.1, *Excise* brought in 182.5 and *Income Tax* 46.0, the incidence of which in Bombay was Rs. 2-3a. On *Civil Works* 98.7 were spent. The village money-lenders in Gujarat charge from 6 to over 15 per cent., the Co-operative Societies 6½, and allow 3 to 4 per cent. on deposits. In Bombay the former charge from 12 to 15, while the latter only charge 9 and allow 6½ per cent. on deposits.

Bengal States:—Cover 32,733 square miles and contain 13 towns and 21,418 villages, with 3,940,462 inhabitants, of whom 61,000 only are urban. The description of the Bengal Presidency applies to the Native States in it.

BOMBAY PRESIDENCY.

Bombay Presidency:—Area 75,918 square miles, containing 173 towns and 21,296 villages, with 15,301,677 inhabitants, of whom 3 millions are found in towns. There are of Co-operative Credit Societies, Urban 20 with 1,945 members, Rural 50 with 3,578 members. The birth rate in 1906 was 33.8 and the death rate 35.1. For administrative purposes the Presidency includes Aden, Perim, and Sind; the first two are outside the purpose of these notes and the third will be treated separately. The Presidency is divided in two by the Nerbudda river; on the north lie the Province of Gujarat and the Peninsulas of Kathiawar and Cutch; to the south are found the Maratha country, the Deccan, and Konkan. Gujarat is a low plain of alluvial origin; in the southern portion the valleys of the Tapti and Nerbudda are richly cultivated, in the northern part the soil is sandy, and the rainfall is deficient. The limestone mountains on the north-east divide this Province from Merwara; Cutch, capital Bhuj, lies to the south of the so-called Rann of that name, a salt water marsh. Coming down south many Native States are traversed which have already been enumerated containing many important towns, such as Ahmedabad, with 185,889 inhabitants, Jamnagar, and Broach near the mouth of the Nerbudda. The Kathiawar Peninsula is served by lines of railway radiating to almost every port and joining

the main line running north from Bombay. A railway is projected round the Rann of Cutch which will link Bombay directly with Karachi in Sind; this port, although of enormous importance, is at present only connected to the capital of the Province to which it belongs by the sea or by an exceedingly roundabout railway route.

In the Southern Division are the Mahratta country, the Deccan, the Carnatic, and the Konkan; in this part of the Presidency is Surat, with its 119,306 inhabitants, and its very ancient port at the mouth of the Tapti, which is now silted up. The Deccan is the portion of India lying south of the Nerbudda; that part in this province including Khandesh is an elevated plateau behind the Western Ghats. The range of hills are so-called which run north and south near the coast and cut off the Konkan (a narrow strip between them and the sea) from the interior. There are many streams which rise on the east slope of the Ghats and finally find their way into the Bay of Bengal. The largest of these are the Godaveri, the Manjera, the Bhima, Kistna and Warda rivers. The country south of the Kistna is called the Carnatic, and North Canara is the southernmost district of the Presidency. The agriculture varies with the physical features of the country. The Ghats are covered with fine forests. The rainfall of the Konkan is overwhelming, so rice is grown in the low lands; millet thrives best in the Deccan, rice and wheat in Gujarat, and cotton almost everywhere, but especially in the inland districts.

With the exception of one abnormal year, there has been a continuous decline in the exports of *Opium* for many years past, the number of chests exported in 1906-07 having been 13,321; 972 chests were sold in the Presidency and 575 chests were supplied to the Madras Presidency.

The Provincial Government has under contemplation the survey of several indigenous industries and the compilation in an easily accessible form of existing materials containing information regarding them, with a view of ascertaining the obstacles with which the various local crafts contend, and to devise measures for their removal either by providing improved processes and implements or by such other means as may in each case seem most likely to secure the object in view. Experts to be employed in each case, as the monographs—such as those on iron, quoted above, on pottery, cotton, silk and woollen goods, brass and copper, ivory and woodwork—do not contain complete information. The first one to be taken in hand is an expert examination of the weaving industry in the Presidency, with special reference to improvements in hand looms.

The consumption of salt *per capita* was 11.65 lbs., 30 fish curing yards were opened and treated 200,207 maunds of fish. Poona is the capital of the Mahratta country, and the Government moves into this city during the hot weather. The inhabitants number 153,320; the death rate in 1906 (excluding cantonments) was 10,356. The province in general has suffered severe visitations of plague—so much so that the population has diminished in

some measure owing to emigration. The chief railway systems are the Bombay, Baroda and Central India northwards, The Great Indian Peninsula, to the eastward, and the Southern Mahratta to the south. The net Revenue of the Province was (in lakhs of rupees) 11,260, and the expenditure 514.6 There were 581 estates under Government management with an income of nearly 11½ lakhs.

Municipalities.—The Bombay Corporation consists of 56 elected and 16 nominated members. The outstanding debts amount to nearly Rs. 5 crores and the invested sinking fund to about Rs. 68 lakhs. The net receipts in 1907-08 amounted to Rs. 56.7 lakhs, to which octroi contributed Rs. 15.4 lakhs. The expenditure was Rs. 94.2 lakhs, the balance at the end of the year was Rs. 19.5 lakhs, and the incidence of taxation nearly Rs. 8.5 per head per annum; Rs. 66.1 lakhs have been spent in combating the plague in the last three years, out of the revenues of the municipality. The inhabitants in 1906 numbered 977,822, the death rate being 68.98. There are of Co-operative Credit Societies, Urban 3 with 103 members, Rural 37 with 1,925 members. The Bombay City Improvement Trust have spent Rs. 241.1 lakhs since 1898, mostly in acquiring properties. Their yearly revenue is Rs. 13.9 lakhs, and this will in future have mostly to be spent on works, the most important of which will be the subsoil and surface drainage of the city and of Malabar Hill.

In the interior (including Sind) there are 162 municipalities, of which 14 were city, 4 temporary, and 44 corporations, composed entirely of elected members. Their aggregate income was Rs. 65.1 lakhs, their expenditure Rs. 67.8 lakhs, and their total liabilities Rs. 44.0 lakhs. The incidence of taxation ranged from Rs. 7-14-1 in Karachi to 7 pie in Ashta.

District Boards.—There are 25 district and 211 *taluk* or sub-divisional boards with 3,624 members, of whom 40 are ex-officio, 1,906 nominated and 1,518 elected. Their income was Rs. 63.6 lakhs; their expenditure Rs. 54.0 lakhs, of which Rs. 27.0 lakhs went on roads, buildings, and water supply. The balance at credit amounted to Rs. 30.5 lakhs.

The trade of Bombay Port as a whole in 1906-07 formed a record. The imports of building materials have continually increased on account of the great activity which has been displayed in the erection of new buildings throughout the city.

The earliest water supply on modern lines was begun *circa* 1873, and the earliest drainage in 1890. By the end of 1906, exclusive of Bombay, 37 towns had a water supply and two had drainage, while the Bombay Village Sanitation Act of 1899, was in operation in 239 villages; nevertheless many towns in the Presidency are still in want of drainage and water supply.

The Revenue of the Port Trust has shown a steady rise of about Rs. 3.0 lakhs a year since 1900 and amounted in the year 1906-07 in lakhs of rupees to 73.6, the expenditure on revenue account being 62.7, and on capital account 33.1, of which 22.6 were spent on new dock works. The debt of the Trust is Rs. 667.3 lakhs, the Reserve Fund being 50.3, and the Invested Funds amounting to 10.0.

The Trustees control practically the whole trade of the Port except the coal wharves of the Railways, and of the Peninsula and Oriental and the British India Steam Navigation Companies. With the exception of coal, dates, kerosine oil and timber, the greater part of the Foreign Trade and that part of it carried in square-rigged vessels is dealt with at the docks, the country craft go to the Bunders. The upward tendency under nearly every item is marked. The Merewether Dry Dock was occupied for 278 days by 166 vessels of 539,842 tons, including the *Macedonia* 530 feet 4 inches long, and 64 feet 4 inches beam, of 10,512 tons, the largest vessel that entered the port in 1906-07. The deepest draught vessels were the *S. S. Chupra* of 26 feet 10 inches inward, and the *S. S. Ikbal* 27 feet 3½ inches outward. 991,850 tons were dredged in docks and channels. The Port is being extended and connected everywhere with the railways. By the Mazagon-Sewri Works, 518.38 acres will be reclaimed. A new dock is in progress and a shoal in front of it is being removed. The vessels using the Port were :—

Steamers—

		No.	Tons.
Foreign Trade	...	676	1,762,674
Coasting "	...	1,958	1,595,112
		<u>2,634</u>	<u>3,357,786</u>

Sailers—

Foreign Trade	...	228	25,051
Coasting "	...	52,534	765,126
		<u>52,762</u>	<u>790,177</u>
TOTAL	...	<u>52,762</u>	<u>790,177</u>
GRAND TOTAL	...	<u>55,396</u>	<u>4,147,963</u>

The Principal articles dealt with were, in thousands :—

IMPORTS.		EXPORTS.	
Bricks, Tiles, Chunam and		Bones	... tons ... 32
Sand	... tons ... 357	Coal	... " ... 80
Coal	... " ... 645	Cotton	... packages ... 1,695
Cotton	... packages ... 319	Grain	... tons ... 215
Firewood	... tons ... 118	Ground-nuts	... " ... 6
Grain	... " ... 336	Hides	... Nos. ... 283
Hardware	... " ... 8	Iron	... tons ... 23
Do.	... packages ... 62	Kerosine Oil	... galls. ... 3,430
Hay and Straw	... tons ... 50	Manganese Ore	... tons ... 363
Iron and Steel	... " ... 135	Myrabolams	... " ... 41
Kerosine Oil	... galls. ... 27,722	Opium	... chests ... 14
Machinery, Boilers, Rail-		Piece Goods	... bales ... 221
way Materials	... tons ... 103	Seeds	... tons ... 562
Piece Goods	... bales ... 322	Sugar	... " ... 43
State Railway and Civil		Twist and Yarn	... bales ... 692
Works Stores	... tons ... 73		
Sugar	... " ... 378		
Timber	... " ... 109		
Twist and Yarn	... bales ... 35		
Wool	... packages ... 12		

The Bombay Chamber of Commerce consists of 2 honorary and 206 ordinary Members. They have for years advocated the construction of the Nagda-Muttra Railway, which was surveyed in 1892-95, and is now under construction, and when completed, will shorten the distance to Delhi or Muttra by 93 miles and Agra by 50 miles. The complaints of shortage of wagons on

the three railways serving the port have been bitter and persistent for many years past. The most important points taken up by the Chamber are the following:— They objected to the Gold Standard Reserve being diverted to railway expenditure. They consider that manufacturers in India should be encouraged to extend their works by assuring them such increased and continuing orders which the Government might consider advisable, and place a much larger share of their orders in India. They urge a simplification of tariffs on the railways; improved road communication in the city by the extension of the tramways; the opening out of the Pench coal-fields in the Central Provinces, whereby a practically unlimited supply of cheap coal would be available for Ahmedabad and Bombay; the abolishment of the tax on sugar and the freeing of the people's food from local taxation. They complain of insufficient water supply; they consider octroi should be abolished, and they welcome motor cabs if they be geared to a maximum moderate pace.

BOMBAY STATES.

Bombay States.—Cover an area of 65,761 square miles, in which there are 29 towns and 14,995 villages, with 6,908,648 inhabitants, of whom $1\frac{1}{2}$ million are urban.

BURMA.

Burma, including Shan States, Chin Hills, and Karenni:—Covers 236,738 square miles, in which there are 52 towns and 60,395 villages, with 9,237,654 inhabitants, mostly Buddhists, of whom only 807,948 are urban. In Lower Burma the birth rate in 1906 was 32'3; the death rate 27'1; in Upper Burma the figures were 34'2 and 26'2. Burma is watered by the Irrawaddy and Salween rivers. The delta is flat, inland there are rolling downs and hills, while it is mountainous in the north. Rice is the chief staple, millet, cotton, sisamun and tobacco are grown, and the forests yield good timber—especially teak. Jade and ruby are mined, and the production of petroleum bids fair to supply all the wants of the Empire. The valley of the Irrawaddy, including Upper and Lower Burma, is in the centre; the backbone of the Yoma mountains is on the western margin of that valley; the hill country of the Shan and other wild tribes on its eastern edge which borders on the frontier states of the Chinese Empire; the coast strip of Arakan lies between the Bay of Bengal and the mountains; and the long isolated coast strip of Tennaserim lies between the Bay of Bengal and Siam. The central valley and the two coast strips are extremely fertile; teak and other valuable forest trees and products grow on the outskirts of the hilly tracts; the seaboard is indented with numerous creeks and the whole of the level country on the coast and in the lower Irrawaddy valley is one vast rice-field. The rivers float down the timber, etc., from the forests in the north, and steamers handle the other products, the navigable part extending beyond Bhamo, or 900 miles from its mouth. A metre gauge line runs north from Rangoon to Mandalay on the left bank of the Irrawaddy, and thence north-east to Lashio on the road to Kunlong. There are branches in the south from Pegu to Martaban, and from Insein to Prome, with

a short branch to the left bank of the same big river, opposite to which lines run to Bassein. On the right bank of the river opposite Mandalay there is a line from Sagaing to Myitkyina nearly due north, and a short one on the west to Alon. There are three schemes for joining up the Assam and Burma Railways, viz., the Hun-kong Valley route from Mogaung (near Myitkyina towards Dibrugarh, the Manipur route from Kyathin towards Lumding, and the Aeng Pass route from Meiktila, Pyinmana and Prome to Chittagong. Mandalay contains 183,816 inhabitants, with a death rate of 57'1 and Rangoon 234,881, with a death rate of 47'6.

The Commissioners for the Port of Rangoon are constructing new wharves and reconstructing old ones. An expenditure of 125 lakhs has been sanctioned for a more or less experimental scheme for training the river and stopping erosion. The Port is progressing. The revenue in lakhs of rupees in 1906-07 was 20'3; the expenditure 20'0, besides a capital expenditure of over 58'0 out of 89'0 sanctioned for works; 66'05 have been spent in dredging approaches and other works and in surveying the river and its banks. 1,431 steamers of 2,657,565 tons, and 195 sailers of 33,023 tons entered the Port, making a total of 1,626 vessels and 2,690,188 tons. Of these 416 steamers were of over 4,000 tons. Of those that left the Port, 112 drew 22 feet, 87, 24 feet, 93, 25 feet, 41 over 26 feet, and 3, 26 feet. 1,001 vessels used the Commissioners' moorings and 1,227 steamers the jetties and pontoons.

The Imports are given below in thousands:—

IMPORTS.

Ale, Beer, Porter	cases	59	Machinery	tons	2
Do.	casks	8	Matches	packages	39
Betel Nuts	tons	16	Metals	tons	1
Bricks and Tiles	"	8	Oils	"	89
Cement	"	13	Oilman Stores	packages	266
Candles	cases	28	Paints	tons	2
Cocoanuts	tons	13	Paper	"	5
Drain and Water	"	7	Piece Goods	packages	110
Pipes	"	7	Raw Materials	tons	6
Earthenware	packages	358	Sugar and Sugar-		
Flour	tons	16	candy	"	17
Fish and Prawns	"	11	Spices	"	1
Glassware	packages	32	Seeds	"	10
Gunnies	bales	52	Tobacco	"	6
Grain, Rice	tons	8	Twist and Yarn	packages	77
Other Grains	"	13	Vegetables, Fruits,		
Haberdashery	packages	18	etc.	tons	25
Hardware	"	45	Wines and Spirits	cases	92
Do.	tons	26	Do.	casks	2

Nearly 1,264,400 maunds of imported salt paid duty in Burmese ports during 1906; of this 43 per cent. was from the United Kingdom and 35 per cent. from Germany; English salt predominated from 1888 to 1897, German from 1898 to 1905, when England again took the lead.

Municipalities.—The revenue and expenditure of the Rangoon Municipality in 1906-07 was Rs. 30'0 lakhs; the outstanding loans amounted to Rs. 122'5 lakhs, the sinking fund being Rs. 7'6 lakhs; the incidence of direct taxation and that of income respectively were Rs. 8-12a. and Rs. 13-12a. The town is rich and can pay for its wants, the pressing ones being the improvement of the sewerage, the water supply, the roads, and the regulations of the milk supply. There are 43 municipalities in the interior

with 537 members, of whom 537 are ex-officio, 168 are nominated and 71 are elected. Their total income was only Rs. 30·4 lakhs, there being no octroi in Burma. There are no local boards in Burma; district funds are under the control of Government officials, and there are 36 of these funds with an income of Rs. 35·7 lakhs and an expenditure of Rs. 33·4 lakhs. Those in Lower Burma are the largest; they are known as the District Cess Funds and include the proceeds of a 10 per cent. cess on the land revenue, and they spent Rs. 13·4 lakhs on public works.

The ordinary revenue of the Port Trust in 1906-07 was Rs. 19·8 lakhs and the expenditure Rs. 20·3 lakhs; the capital expenditure having been Rs. 58·7 lakhs, the total debt amounting to Rs. 108·0 lakhs. Out of sanctioned estimates for Rs. 89·0 lakhs, Rs. 66·0 lakhs have been spent on port works, the training of the Rangoon river is in hand, and very rapid progress has been made in the works needed for the proper equipment of the Port. 581 vessels in cargo, nearly all steamers, were cleared out of Burmese Ports, having a tonnage of 1,117,490.

The sewerage of Rangoon, which is on the Shone ejector system, has to be extended as the town grows. East Rangoon is being drained and reclaimed with earth brought by rail—a profitable enterprise; the Lanmadaw quarter is also being reclaimed. The water works which have cost 46 lakhs, are insufficient for growing needs and will have to be extended. Sanitation in the interior is very backward; a conservancy scheme for Mandalay will have to be carried out.

The receipts from *Land Revenue* were (in lakhs) 385·6, the expenditure 63·0. *Excise* brought in 97·7 and *Income Tax* 19·9, the incidence being Rs. 2·8a. in Rangoon. On *Civil Works* 124·0 were spent. Village money-lenders charge from 24 to 50 per cent., the Co-operative Societies 15, and allow 9 per cent. on deposits.

CENTRAL INDIA AGENCY.

Central India Agency:—Area 78,772 square miles, with 80 towns and 33,282 villages, containing 8,628,781 inhabitants mostly Hindus, of whom less than a million were urban. The Agency includes nine groups of Feudatory States under the Governor-General's Agent for Central India. They are Bagelkhand, the Bhil Agency or Bhopawar, the Deputy Bhil Agency, Bhopal, Bundelkhand, Indore, Guna, Gwalior and the Western Malwa Agency. Most of the States have numerous dependencies, whose subordinate rights are guaranteed by the British Government. This region lies to the North of the Central Provinces and is bounded on the south-west by Bombay, and, going round with the clock, Rajputana, the United Provinces and Chota Nagpur on the south-east. Drought and consequent scarcity and famine are not unknown, but the results have been greatly mitigated by the great systems of railways which intersect the country in every direction. There are many rivers, but most of them run very low in the hot season. Iron, coal, copper and limestone abound, also very good building stone. 1,091,210 maunds of salt were consumed. Some 15 miles north-east of Panna in Bundelkhand is a very valuable adamantiferous tract which is not worked to

the best advantage. Every state has its capital, which accounts for the numerous towns, but none of them have over 100,000 inhabitants.

CENTRAL PROVINCES AND BERAR.

Central Provinces and Berar:—Area 100,345 square miles, with 52 towns and 60,395 villages and 11,991,670 inhabitants mostly Hindus, of whom nearly 1½ million are urban. The birth rate in 1906 was 51·7 and the death rate 43·5. There are of Co-operative Credit Societies, urban 7 with 716 members, rural 63 with 2,870 members. Berar is on the south-west of the region and is leased in perpetuity to the Government of India by the Nizam of Hyderabad. There are 15 Feudatory States, and the chief towns are Nagpur, with 127,734; Jabalpur, a great railway centre; Sagar, an important cantonment, and Kampti.

There were 138 estates under the Court of Wards at the end of September 1906, with a total gross income of over 10 lakhs and an indebtedness of 8·3 lakhs.

There are 58 municipalities within the Province. Their receipts, of which nearly a third were from octroi, were (in lakhs of rupees) 25·5, and their expenditure 22·9, of which 56 per cent. was on sanitation.

On the south-west the area is bounded by Hyderabad, then Central India, Bengal and Madras; it is a hilly, jungly land, and many aboriginal tribes are found in it. The country is being opened up by means of roads and by numerous branch-lines, under construction or proposed, linking up the three great railway systems which serve it, viz.: The Great Indian Peninsula, the old Indian Midland, and the Bengal-Nagpur Railways. It is also intersected by many streams and rivers, tributaries of the Tapti, the Mahanadi, the Godavari, and the Nerbudda rivers. There are coal-fields, some of them, such as the Pench, awaiting development; and iron-ore, rice, wheat, millet, pulse, oil seeds, spices and tobacco, flourish where cultivated, besides cotton, of which Berar yields the finest in India. 2,468,497 maunds of salt were consumed. Messrs. Tata & Sons are extracting manganese ore at Manyan. The net revenue of the Province (in lakhs of rupees) was 294·0; the expenditure 226·9.

The receipts from *Land Revenue* were (in lakhs) 170·7, the Expenditure 33·4. *Excise* brought in 38·4 and *Income Tax* 5·9. On *Civil Works* 57·2 were spent.

CENTRAL PROVINCES STATES.

Central Provinces States:—Area 31,188 square miles, with 11 towns, 8,290 villages, and 1,631,140 inhabitants, of whom 53,000 are urban, under numerous minor rulers.

COORG.

Coorg:—Area 1,582 square miles, with 5 towns and 479 villages and 180,607 inhabitants, the majority of whom are Hindus. The birth rate in 1906 was 26·1, the death rate 26·3. There are of Co-operative Credit Societies, rural 11 with 957 members. A small British Province in the south-west of the Madras Presidency, of which the Resident at Mysore is the

Chief Commissioner. The main rivers are tributaries of the Cauvery and the chief town is Merkara, situated on a tableland 3,500 feet above sea-level. Stone and laterite is quarried, gold has been found, and rice is cultivated in terraces; but it is as a coffee-growing district that the Province offers the best opening for enterprise. The amount spent on Civil Works was Rs. 3·4 lakhs.

EASTERN BENGAL AND ASSAM.

Eastern Bengal and Assam:—Together cover 106,130 square miles, with 61 towns and 91,760 villages and 30,961,459 inhabitants, of whom only $\frac{1}{4}$ of a million are urban, and of whom in Eastern Bengal, two-thirds are Mahomedans, the percentage for the whole province being 58. The birth rate in 1906 was 37·4, the death rate 31·7. There are of Co-operative Credit Societies, urban 12 with 1,029 members, rural 48 with 2,424 members. Dacca on the Meghna river is the chief town and has 90,542 inhabitants. Assam forms the north-eastern portion of the province, and a mountainous range divides it into the Surma and Brahmaputra valleys, the first on the south with Gauhati as a chief town, the second on the north with Sylhet. This range comprises the Naga, Khasi, Jaintia and Garo Hills.

Municipalities.—Fifty of the towns have some form of Municipal Government. 44 of these may be classed as important, and in 34 the elective system is in force. About 17 per cent. of the urban population ratepayers, and the average incidence of taxation is, are Rs. 1-5a. 11p. *per capita*. 15 of these bodies have an indebtedness of Rs. 2·2 lakhs.

District Boards.—In Eastern Bengal there are 14 district and 33 sub-divisional Local Boards, besides 10 Union Committees. In Assam there are 19 Local Boards constituted under executive rules, of which a large proportion of the Members are European planters. Their expenditure amounted to Rs. 44·4 lakhs, of which Rs. 26·4 lakhs was devoted to Civil Works. The principal port, Chittagong, is at the mouth of the Meghna river; this is the name of the mighty Brahmaputra where it debouches into the Bay of Bengal. The number of vessels in cargo entering the Province in 1907-08 is set down as 22, with a tonnage of 61,483. The port is served by the Assam-Bengal Railway, which forms a chord to the great bend of the Brahmaputra from Dibrugarh in the north, with short branches to Talap, Lido, Gauhati, Silchar, Chandpur, and Sahebghatta respectively, other branches are under construction or proposed, as well as short lines from Jaganathgarh and Narayanganj, passing through Dacca. A line is being constructed from the Eastern Bengal Railway at Kokrajhar to a point opposite Gauhati, and many other similar connections are proposed, but they do not cross the big river. The three proposals to join up with the Burma Railways have already been mentioned. The total expenditure on Civil Buildings and Roads in 1906-07 was Rs. 75·7 lakhs. The net revenue of the municipalities is put down at Rs. 14·2 lakhs, the expenditure Rs. 13·8 lakhs, of which about half was spent on Sanitary Works which are badly wanted; that of the whole Province being respectively

Rs. 443·2 lakhs and Rs. 256·8 lakhs. The staple products are Jute, Oil-seeds, Rice, Sugar, Tea and Tobacco. The area for cultivating this is capable of almost indefinite expansion throughout Assam. The average consumption per head of salt was 6·6 lbs.

The receipts from *Land Revenue* were (in lakhs) 193·5, the expenditure 34·5. *Excise* brought in 63·2 and *Income Tax* 10·0. On *Civil Works* 75·7 were spent. The village-money lenders charge from 18 to 37½ per cent., whereas the Co-operative Societies grant loans at from 9 to 18½, and allow 6½ per cent. on deposits.

HYDERABAD.

Hyderabad is a Native State as large as Italy, having an area of 82,608 square miles in which there are 78 towns, 200,110 villages and 11,141,142 inhabitants, mostly Mahomedans. This is the premier Mahomedan State in India and its ruler is called the Nizam. It is bounded on the west by the Bombay Presidency, from which it is divided by the Kistna river. It is traversed from west to east by the Godavari river which also runs along the greater part of its Eastern boundary, and the tributaries of which water the northern portion. The capital, Hyderabad, and its suburbs contain 448,466 inhabitants. The gross revenue of the State is Rs. 375 lakhs. The Singareni collieries are in this State and the output therefrom is approaching 500,000 tons; other minerals and gems to the value of Rs. 8·0 lakhs are also produced. Rice is grown on the plains, but the main crops are cotton on the black soil, maize and millet, oil-seeds, sugarcane and wheat.

KASHMIR.

Kashmir.—Area 80,900 square miles containing 2 towns, 8,949 villages and 2,905,578 inhabitants, mostly Mahomedans. The capital is Srinagar with 122,618 inhabitants, and the State comprises Jammu, Kashmir, Ladakh, Gilgit and Baltistan. It is ruled by a Maharaja (with a British Resident) and the revenue amounts to Rs. 86·3 lakhs. 363,253 maunds of salt were consumed. The main valley of Kashmir is an extensive plain about 5,200 feet above sea-level, the alluvial tract in its centre being intersected by the Jhelum and its tributaries. Several railway lines are being considered, which it is proposed to work by electricity, *viz.* between Jammu and Srinagar and then *via* Muzafarabad, to join the North-Western Railway between Madura and Saraikala.

MADRAS PRESIDENCY.

Madras Presidency.—Has an area of 141,725 square miles, containing 234 towns, 54,610 villages and 38,209,436 inhabitants, mostly Hindus, of whom about 4½ millions are urban. The birth rate in 1906 was 30·9, the death rate 27·4. There are of Co-operative Societies, urban 22 with 3,576 members, rural 41 with 2,863 members. The capital, Madras, contains 509,346 inhabitants, with a death rate of 46·9. Other important towns are Madura 105,984, Trichinopoly 104,721, Salem and Calicut. The Province stretches along the whole eastern coast of India from Orissa to Cape Comorin, and right across the southern half of the peninsula to the western coast of Malabar. The

comparatively low (so-called) Eastern Ghats lie altogether in Madras and are pierced by the three rivers Godaveri, Kistna, and Cauvery, which all rise in the Western Ghats and run in a south-easterly direction into the Bay of Bengal; besides these, there are six smaller rivers debouching on the same coast. Both coasts are characterised by black waters which run parallel to them and afford sheltered communication by water in long stretches. The Western Ghats rise abruptly from the coast at a distance of 40 to 50 miles, and on the east of them the ground falls to the great central and elevated plateau, which also slopes down to the Eastern Ghats, the comparatively lower range of hills, at a greater distance from the coast line which has been pushed out by the deltas of the big rivers. The products of the land are rice, cinchona, coffee, cotton and other fibres, indigo, millet and other food grains, oil seeds, spices, tobacco, and tea; there are not many large factories and no good ports, even Madras being an open roadstead artificially formed into an harbour at enormous expense. There are 65 salt factories of which 22 are under Government management. The average consumption per head was 18·7 lbs. including Mysore, Coorg and the Native States except Travancore and Cochin. The Province is well supplied with railways, especially along the east coast, where the lines are taken over all the rivers, but the gauges are inextricably mixed. There are great gaps in the line on the west coast, some of which it is proposed to close and the connection with Ceylon will be made before long. The railways are the Bengal-Nagpur, the Madras and Southern Mahratta, and the South Indian. There were 26 estates under the Court of Wards at the end of June 1907, with a total gross income of over 30 lakhs, and a balance to the good of 6·3 lakhs.

Municipalities.—The income of the Madras Corporation in 1906-07 was Rs. 21·6 lakhs, the taxation *per capita* amounted to Rs. 2-9a.; there are no octroi duties but a principal tax of 10 per cent. on the annual value of buildings and land, besides a six per cent. water tax and a 1½ per cent. lighting tax; also professions and trades, vehicles and animals are all taxed. The expenditure was Rs. 19·8 lakhs, chiefly on drainage; a filtered water supply scheme to cost 23½ lakhs is also in hand. The municipal debt amounts to Rs. 68·4 lakhs and the sinking fund to Rs. 20·6 lakhs. In the interior there are 60 municipal councils; the percentage of the population entitled to vote being 2·1; there are no octroi duties anywhere and the incidence of taxation is nearly Rs. 1-3a. *per capita* of the municipal population. The expenditure was Rs. 39·3 lakhs, of which Rs. 8·7 lakhs were on water and drainage, buildings and roads, the outstanding debts being Rs. 2·4 lakhs. There are 23 district boards and 82 taluk boards and 382 village unions. Their income was Rs. 130·6 lakhs, their expenditure Rs. 114·1 lakhs, of which Rs. 52·1 lakhs were on public works; the incidence of taxation was 3a. 7p. *per capita* and a railway belonging to the Tanjore District Board brought in a net profit of 5·6 per cent. The sanitation of the Province is very backward and works to cost 30 lakhs will have to be undertaken.

The ordinary revenue of the *Port Trust* was Rs. 9·9 lakhs and the expenditure Rs. 5·4 lakhs, of which Rs. 3·6 lakhs was on capital account, besides Rs. 12·9 lakhs on this account. Rs. 178·5 lakhs have been spent and Rs. 555 lakhs are to be spent for new works, and yet the affairs of the Trust are in such a flourishing condition that there is little risk of enhanced harbour dues in spite of the enormous past, present and future expenditure. 890 steamers of 1,831,561 tons and 976 sailers of 73,558 tons entered the harbour in 1907-08. The Chamber of Commerce consists of 3 honorary and 36 ordinary members. A proposal for expanding the working conveniences of the Port is under consideration. The net revenue of the whole Province in the previous year was Rs. 1,259·5 lakhs, and the expenditure Rs. 553·3 lakhs.

The receipts from *Land Revenue* were (in lakhs) 547·0, the expenditure 114·2. *Excise* brought in 216·1 and *Income Tax* 27·4. On *Civil Works* 14·0 were spent. The village money-lenders charge from 9 to 15 per cent., the co-operative societies 9, and they allow 7 per cent. on deposits.

MADRAS STATES.

Madras States.—Area 9,969 square miles, 17 towns 4,997 villages and 4,188,086 inhabitants mostly Hindus, of whom only 292,000 are urban. They are Travancore on the south-west coast, Cochin just north of it. Pudda Kottai, a small inland tract in the south-east, Banganapalli in the north, and Sandur also in the north to the west of the last, both of them being very small. In the year ended August 15, 1906, the revenue of the *Travancore State* was Rs. 80·0 lakhs, the expenditure Rs. 104·1 lakhs, of which Rs. 21·5 lakhs were on public works. The total external trade amounted to Rs. 252·6 lakhs of which exports formed 63 per cent.; this showed an increase of more than 97 per cent. over the preceding year. In *Cochin State*, during the same period, the receipts amounted to Rs. 33·4 lakhs, the expenditure to Rs. 33·9 lakhs, of which Rs. 3·0 lakhs were on public works, including a forest tramway of which 26½ miles were open for traffic. For the year ended June 30, 1907, the revenue of the Pudda Kottai State was Rs. 16·7 lakhs, and the expenditure Rs. 2·2 lakhs.

MYSORE STATE.

Mysore State.—Is 29,444 square miles in area, with 128 towns, 16,884 villages and 5,539,390 inhabitants, of whom 722,000 are urban. The town of Bangalore has 159,046, and Mysore getting on for 100,000 inhabitants. It is under the direct supervision of the Viceroy and has an "inferior" Resident. The revenue of the State in 1906-07 was Rs. 221·6 lakhs; its expenditure Rs. 202·3 lakhs. The aggregate expenditure on Public Works was Rs. 47·1 lakhs, of which Rs. 5·9 lakhs was on the Cauvery power scheme. The total capital invested in the scheme up to June 30, 1907, was Rs. 55·0 lakhs and the net revenue realised in 1906-07 was Rs. 17·7 lakhs. There are 401 miles of the metre gauge and 10 miles of broad gauge railways in the State, worked by the Madras and Southern Mahratta Railway. Gold to the amount of Rs. 334·5 lakhs was obtained from the Kolar Gold-field in 1906, this being

the first year in which the increase of gold production from this field received a check. Manganese was also worked to an increasing extent. A ridge 3,000 feet high divides the State into two nearly equal parts, with spurs enclosing the tributaries of the Kistna on the north, and the Cauvery on the south. The hill country on the west called the Malnad is mostly covered by forest lands; the Maidan or plain country east of this is very fertile and grows areca and cocoanut palms, cinchona, coffee, cotton, millets, sugarcane, rice and tea.

NORTH-WEST FRONTIER PROVINCE.

North-West Frontier Province.—Area 16,466 square miles, 20 cities, 3,348 villages and 2,125,480 inhabitants, mostly Mahomedans, of whom 270,000 are urban, the birth rate in 1906 was 3'86, the death rate 33'7. Its chief city, Peshawar, has 95,147 inhabitants. It consists of part of the Hazara, the Peshawar, Kohat, Bannu, and Dehra Ismail Khan districts, and the Chief Commissioner has political charge of Kurram, Malakand (Dir, Swat and Chitral), Khaibar, Tochi, Goral and Shirani. There is not much cultivation in the Province, the Indus river divides it from those on its eastern and southern boundaries, and it is watered by the Cabul river, a tributary of the same. There were 8 estates under the Court of Wards and their assets (over 3 lakhs) more than covered the liabilities. There are 10 municipalities with an income of Rs. 5'3 lakhs, chiefly derived from octroi, and an expenditure of Rs. 5'4 lakhs, chiefly spent on "Public Health, Convenience and Safety." There are also 5 districts with 216 members, of whom 49 are officials and 26 European. The net revenue of the Province was Rs. 37'2 lakhs and the expenditure Rs. 73'0 lakhs. The consumption of salt was maunds 155'034.

PUNJAB PROVINCE.

Punjab Province.—Has an area of 97,209 square miles, 171 towns, 32,663 villages, and a population of 20,330,339, of whom 18 millions are rural, and more than half are Mahomedans. The birth rate in 1906 was 43'7, the death rate 37'0. The chief city, Lahore, has 202,964, with a death rate of 38'99. Delhi 208,575, with a death rate of 63'08; Amritsar 164,429, with a death rate of 49'42 and Multan less than 100,000 inhabitants. The income tax in Lahore amounts to 4a. *per capita* and in Delhi 11a. Rainfall being scant and big rivers plentiful, irrigation is carried on on a large scale and enormous crops are raised of barley, cotton (including the North-West Provinces, 1,469,000 acres were planted and yielded 370,000 bales of 392 lbs.), maize, millet, oil-seeds, pulse, sugar and wheat (the area under this was 7,366,500 acres yielding 2,618,900 tons). These with rock salt, form the principal exports. The salt mines are the Mayo, Warcha, Kalabagh, Kohat and Mandi mines, and the Sultanpur brine springs. The land gets its name from Panch-ab, or five rivers, that is the Jhelum, Chenab, Ravi, Beas and Sutlej—but the Jumna or Ganges forms its eastern boundary and the Indus its western. There were 45 estates under the Court of Wards with a total gross income of 14 lakhs.

Municipalities.—In 1906-07 there were 138 municipalities, but some of these are so small that they will probably be abolished. Their receipts were Rs. 58'7 lakhs. Their expenditure Rs. 57'1 lakhs, the outstanding loans amounted to Rs. 52'3 lakhs, and the average incidence of taxation *per capita* is Rs. 1-12a. Octroi in 134 towns brought in Rs. 32'5 lakhs. There were 29 District and 20 Local Boards; the year's income of the District Boards was Rs. 42'4 lakhs, the expenditure Rs. 38'9 lakhs, of which Rs. 16'7 lakhs was spent on roads and other public works. The net revenue of the Province was Rs. 429'1 lakhs and the expenditure Rs. 295'4 lakhs, of which Rs. 65'4 lakhs were on Civil and Military work.

The whole Province is served by the North-Western Railway system and by lines worked by it. There were 216'44 miles of lines under construction, or sanctioned for construction, on 31 March 1908, and many projects for others.

The area irrigated by Government canals in 1906-07, was over 6 million acres, an increase of over 50 per cent. in six years. The assessed revenue averaged 13'62 per cent. on a capital outlay of Rs. 1,218'1 lakhs; the lowest being 5'21 per cent. on the Indus Inundation Canals, the highest 27'05 per cent. on the Sidnai Canal. Rs. 224'9 lakhs were spent on Capital Account during the year, of which Rs. 65'3 lakhs were spent on the Upper Chenab, the Upper Jhelum, and the Lower Bari Doab Canals which are still under construction.

Including Imperial, Provincial and Local, the expenditure on *Civil Works* was Rs. 70'9 lakhs, of which Rs. 4'00 lakhs were on feeder roads. The Ludhiana water works which have been sanctioned, are estimated to cost Rs. 4'3 lakhs, and drainage schemes are in progress at Delhi, Multan and Rawalpindi.

More than one-third of the whole Indian production of Beer is brewed in this Province. The output of the Murrec Brewery alone being one million gallons. The beer brewed in India fetches from 12 to 16 as. per gallon.

There are 182 *Factories* employing 26,875 hands. *Co-operative Credit Societies*.—The village money-lenders charge 18 to 24 per cent., the Societies 9 to 9½, and pay 5 per cent. on members' deposits. There were 3 urban and 174 rural societies with 279 and 17,254 members and incomes of about Rs. 900 and Rs. 3'0 lakhs respectively; besides two grain banks. *The Excise Revenues* amounted to Rs. 40'0 lakhs, of which Rs. 27'5 lakhs were due to beer and other liquors. The trade in cocaine is under regulation. Malwa opium pays Rs. 4 and that from Kashmir and the Hill States Rs. 2 per seer. In *Land Revenue* according to the Finance and Revenue Accounts for 1906-07, the receipts were Rs. 358'9 lakhs, and the expenditure Rs. 46'1 lakhs. The Income Tax realised 13'7 lakhs and its incidence amounted to 11a. in Delhi and 4a. in Lahore. The birth rate of the Province was 43'7 and the death rate 37 per mille. 2,533,089 maunds of salt were consumed.

PUNJAB STATES.

Punjab States.—Area 36,532 square miles, with 57 towns, 10,997 villages and 4,424,398 inhabitants, of whom nearly 4 millions are rural.

Irrigation.—The branches of the Sirhind Canal within the States irrigated 473,293 acres and earned 9·65 per cent. on a total capital outlay of Rs. 14·1 lakhs. The following are the names of the States in alphabetical order :—Bahawalpur, Bashahr, Bilaspur, Chamba, Dujana, Faridkot, Jind, Kalsia, Kapurthala, Keonthal, Loharu, Maler Kotah, Mandi, Nabha, Nalagarh, Patandi, Patiala, Sirmur, Suket, and other small States in the Simla Hills. The area is intersected by Railways included in the North-Western system, and the States have contributed largely to their cost. The Patiala State, one of the largest contributors to the Railways, spent about Rs. 12·9 lakhs on Public Works in the last year.

RAJPUTANA AGENCY.

Rajputana Agency.—Area 127,541 square miles, containing 128 towns, 29,901 villages, and 9,723,301 inhabitants, mostly Hindus, of whom nearly 1½ million are urban. It comprises 16 Rajput, 2 Jatia and 1 Mahomedan States all of which have British Residents under an Agent to the Governor-General. The principal states are Bikaner, Jaipur, Jaisalmer, Jodhpur (Marwar), and Udaipur (Mewar). The principal city is Jaipur with 160,167 inhabitants. The agency is bounded on the north and east by the Punjab and the United Provinces, on the west by Sind, and on the south by the Central India Agency. The rainfall is scanty, and a large part of Bikaner, Jaisalmer and Jodhpur is desert. The Aravalli Hills divide it, from north-west to south-east, into the watershed of the Luni river on the west, and of the Chambal river, a fairly fertile region, which bounds it on the east. Bikaner has a population of 504,627, mostly Hindus, and a revenue of Rs. 29·9 lakhs; and Jaipur one of 2,658,666, mostly Hindus, and a revenue of Rs. 61·5 lakhs; 944,977 maunds of salt were consumed. The total outlay on Public Works in the Agency during the 18 months ended September 30, 1906, was Rs. 66 lakhs. Many projects for protective irrigation works are under consideration and seven of them estimated to cost Rs. 3·9 lakhs have been put in hand by the Bundi, Karauli, Shahpura and Tonk States. Two direct Railways built by the various States traverse the area from east to west and from north to south. East of the latter a complete network of lines has been established by similar agency. The Jaipur Durbar are building a line from Jaipur to Madhopur, 62·84 miles, and the Dholpur Durbar one from their capital to Bari, 19·25 miles. The Jodhpur and Bikaner Durbars are constructing a Light Railway to tap the produce (cotton especially) of the land watered by the Jamrao Canal.

SIND PROVINCE.

Sind Province.—Area 47,065 square miles, with 26 towns, 4,403 villages and 3,210,910 inhabitants, of whom about 400,000 are urban. *Karachi*, the principal city, has a population of 116,863. The Municipalities, District and Local Boards are included in Bombay Province.

Karachi Port.—388 steamers of 860,062 tons and 214 sailers of 15,283 tons cleared in 1907-08. The Port Trust revenue receipts were Rs. 28·4 lakhs

and their expenditure Rs. 19·4 lakhs and they have accumulated a reserve fund of Rs. 200 lakhs. Rs. 10·1 lakhs were spent on capital works during the year and their total liabilities stood at Rs. 81·5 lakhs. The Trust is keeping well abreast of the rapidly increasing exigencies of the port.

The trade of the port increased from Rs. 2,343·9 lakhs in 1908 to 3,886·8 lakhs in 1907; in 1903 the value of piece-goods and yarns imported amounted (in lakhs of rupees) to 451·5; this rose to 760·6 in 1907. The other principal imports were:—coal and coke 4·2, metals 57·3, oil, kerosine, 20·2, sugar 173·1, and timber 10·2. Similarly the principal exports were:—bones 13·6, cotton bales 354·8, gingelly 23·6, hides and skins 65·7, iron ore (chromite) 3·4, rapeseed 210·5, wheat 988·9, wool 145·3. Hides, iron ore, oil, oil-cake, saltpetre, wool, and passengers' luggage can be booked through from North-Western Railway Stations to Barcelona, Boston, Genoa, Glasgow, Leghorn, Liverpool, London, Marseilles, Montreal, Naples, New York, Philadelphia and Port Said. A scheme has been sanctioned for constructing berths for ten vessels on the west side of the harbour and all the local authorities are very anxious to bring the metre gauge down to the port from Hyderabad.

Agriculture.—There are 4½ million acres under crop, of which 3½ million acres are irrigated by Government canals, and the area so irrigated is increasing largely. The yield of wheat in 1905-06 was 196,200 tons. The consumption of salt *per capita* was 9·23 lbs.

Railways.—The North-Western broad gauge lines on each side of the Indus join at Kotri and bring produce alongside the vessels in the harbour, which is really the port for the whole of the Punjab and the Frontier Province. A narrow gauge line connects the junction of the lines at Kotri with Delhi *via* Jodhpur, and there is a broad gauge branch from the same place in the direction of the Rann of Cutch and a similar branch further east. As already noted, a line is proposed round the Rann to link up with Bombay, and a narrow gauge extension from Kotri to the harbour and various connecting lines and short branches have also been proposed. The assured revenue is Rs. 85·5 lakhs.

UNITED PROVINCES OF AGRA AND OUDH.

United Provinces of Agra and Oudh.—Area 107,164 square miles with 453 towns, 105,068 villages and 45,691,782 inhabitants, of whom more than 5½ millions are urban, about 85 per cent. Hindus, and 14 per cent. Mahomedans. The birth rate in 1906 was 40·2, the death rate 39·0. There are of Co-operative Societies, urban 1,727 with 27,420 members, rural 133 with 17,040 members. The principal cities, with their respective populations and death rates are:—Agra, 188,022, 39·62; Allahabad, 172,032, 36·87; Bareilly, 131,208; Benares, 209,331, 58·47; Cawnpore, 197,170, 81·83; Lucknow, 264,049, 50·41; and Meerut, 118,129. The Province lies in the valley of the Ganges and its tributaries, from which many canals are fed, and the whole region is most fertile. Naini Tal, one of the hill sanatoria, is the seat of the local government in the hot weather.

There were 170 estates under the Court of Wards at the end of September 1906, the gross receipts of which amounted (in lakhs) to 108½, and their total debts previous and subsequent to assumption of charge amounted to 424½, of which 190½ had been repaid, and 140½ replaced by more favourable loans.

Municipalities exist in 89 towns: their income was Rs. 89½ lakhs, their expenditure Rs. 74½ lakhs. The incidence of taxation was Rs. 1½ *per capita* of the municipal population, and 2½ per cent. of the whole population were eligible to vote. Of District Boards there are 48, with 956 members; their income was Rs. 72½ lakhs, their expenditure Rs. 70½ lakhs, of which Rs. 33½ lakhs were on public works. Sanitary matters have every attention and big schemes of drainage and sewerage are in progress at Agra, Cawnpore, and Lucknow. The net revenue of the whole province was (in lakhs of rupees) 977½, and its expenditure 537½ of which 87½ were on civil works. The receipts and expenditure of 170 estates, under the Court of Wards, amounted to about Rs. 108½ lakhs. The incidence of the income tax *per capita* was 3a. 6p. in Benares and Lucknow.

Agriculture.—The crop area of the autumn harvest was 24 million acres and that of the spring harvest 20 million, the principal crops being, in thousands of acres, barley, 991; cotton, 1,489, yielding 638,000 bales; grain, 1,545; millets, 826; rice, 2,826; sugar, 1,387, yielding 1,264,000 tons; tea, 8, yielding 2,290,200 lbs; and wheat 1,714, yielding 2,164,500 tons. 4,969,672 maunds of salt were consumed. The Agricultural Department distribute advice, implements, and seeds, which are all appreciated. The village moneylenders charge from 12 to 37½ per cent. on good security, the Co-operative Credit Societies 12½ per cent. and they pay 6½ per cent. on members' deposits. There are 270 of these societies with 44,470 members: the receipts were Rs. 13½ lakhs, the disbursements Rs. 13½ lakhs.

Railways are so numerous that there is not much scope for new lines, the only one of any importance that is proposed is between Cawnpore and Allahabad, on the left bank of the Ganges, with branches through Rai Bareilly to Fyzabad.

Irrigation.—2,588,457 acres were served by the 14,000 miles of irrigation channels. The revenue of all canals amounted to Rs. 125½ lakhs and the expenditure Rs. 92½ lakhs. Productive works costing Rs. 1,194½ lakhs yield a net profit of Rs. 56½ lakhs; the capital outlay in the year on all canals being nearly Rs. 40½ lakhs. Three protective works, the Betwa, Dassan and Ken, have cost Rs. 104½ lakhs, and the total deficit (the additions to which are being rapidly reduced) was Rs. 41½ lakhs. On Civil buildings and roads, Rs. 97½ lakhs were spent by the Imperial, Provincial and Local authorities; the most important work

being a new bridge over the Jumna at Agra, estimated to cost Rs. 19½ lakhs.

The cotton mills produced about 5 per cent. of the yarn and also of the woven goods.

The receipts from *Land Revenue* were (in lakhs) 616½, the expenditure 84½. *Excise* brought in 92½ and *Income Tax* 21½. On *Civil Works* 97½ were spent. The village moneylender charges from 12 to 18 per cent. in Oudh and Meerut and 37½ in other parts of the province, while the Co-operative Society lend money at 12½, and allow 6½ on deposits.

UNITED PROVINCES STATES.

United Provinces States.—Area 5,079 square miles, with 6 towns, 3,576 villages and 802,097 inhabitants, of whom 700,000 are rural. *Rampur State* has an area of 893 square miles with a population of 533,212, mostly Mahomedans. Sanitation and lighting are being attended to and the closing balance in favour of the State amounted to Rs. 2½ lakhs, its revenue approximating Rs. 32½ lakhs.

TEHRI STATE.

Tehri State contains some valuable forests and is also attending to its public works, its closing balance to the good being Rs. 15½ lakhs.

FRENCH TERRITORIES.

French Territories.—*Chandernagore* on the Hughli in Bengal is three square miles in area and has a population of 26,831. *Karikal*, on the east or Coromandel Coast of Madras in the Cauvery delta, has 25,000 inhabitants. *Mahé* on the west or Malabar Coast of Madras has a harbour, an area of 1,445 square miles, with 10,377 inhabitants. *Pondicherry*, the seat of Government, lies north of Karikal in the South Arcot division of the Madras Presidency, has an area of 113 square miles, and a population of 156,094.

PORTUGUESE TERRITORY.

Portuguese Territory.—*Daman*, between Bombay and Surat, at the entrance of the Gulf of Cambay; *Diu*, an island on the extreme southern point of the Kathiawar peninsula, and *Goa* the seat of Government. This is a territory 60 miles by 40 miles, containing 10,625 square miles, one town, the capital Margao, 407 villages, and 475,513 inhabitants. The harbour in Marmagao Bay is a good one and is served by the West of India Portuguese (metre gauge) Railway, running through the territory and 51½ miles long, guaranteed by the Portuguese Government. It was opened in 1888, and has been worked by the Southern Mahratta Railway since 1902. The shipping and port charges conform with those in force under the Bombay Port Trust, and cannot exceed them without the mutual consent of the two Governments.



Medical Profession in India.

BEFORE giving an account of modern medicine and modern medical men in India, a short reference to the ancient Hindu systems of medicine is appropriate, the more so as there still exist a large number of Indian professors of the ancient art, and to this day the descendants of the old castes of *baid*s and *hakim*s form no inconsiderable proportion of the Indian medical men of to-day.

As Sir William Hunter has said: "the national astronomy and the national medicine of India derived their first impulses from the exigencies of the national worship."

Ancient Hindu medicine was also not without influence on the mediæval medicine of Europe and Arabia. Medicine was ranked as an *upaveda* or a supplementary revelation under the title of Ayurveda, and many men still profess to practise what they call the Ayurvedic system.

It is to the religion of Buddhism that ancient India was indebted for the best period of Hindu medicine. Buddhism, like Christianity, was closely associated with the healing of the sick, and like Christianity it led to the establishment of hospitals for the treatment of the sick.

There are several medical works based on the plan of the Ayurveda, as the celebrated *Charaka* by Charak, the *Bhilatantra* by Bhila, and the *Sushruta*, by Sushruta. The authors flourished in the "Buddhistic era," and that is the most definite thing we can say about them.

The *Charaka* is arranged in the form of dialogues between the master and his pupils. It follows the division of the eight parts of the Ayurveda, the first division containing materia medica, or the enumeration, classification and uses of drugs. Their pharmaceutical methods are always elaborate and often in-

genious, and it still shows its influence in the tendency of so many Indian practitioners to polypharmacy, even when taught medicine on Western lines.

Perhaps even more important than the *Charaka* is the *Sushruta*, by Sushruta, "the deputed son" of the versatile Bisi Mittra. It treats mainly of surgery, traces the origin of diseases, prescribes rules for teaching and for the duties of practitioners. It also describes instruments and their uses, and discusses the

influence of weather on health. The "diseases of the humours," the different stages of inflammation, the varieties of ulcers and wounds and the proper diet for patients suffering from them are all described in considerable detail. It also treats of nosology, diagnosis, anatomy of the body, of conception and the development of the body, and has a section on toxicology and antidotes to various poisons.

These two works, the *Charaka* and *Sushruta*, are the foundation of numerous later Hindu works on medicine and surgery, and are venerated as the great original depositories of the art of medicine and surgery among Hindus.

It is of special interest to note that the anatomical descriptions given in the *Sushruta* shows a considerable knowledge of the elements of anatomy, and this is a conclusive proof that the very ancient Hindu physicians and surgeons were quite free from the

later prejudice against the dissection of the human body. The *Sushruta* gives an elaborate description of the way to keep and prepare a body for dissection, and if the anatomy of that day is superficial, it was only what might be expected in such an early stage of civilization.

Unfortunately, instead of progress, a stage of retrogression set in, as Hunter says: "As Buddhism passes



Photo by Bourne & Shepherd.

JOHN ZEPHANIAH HOLWELL,
Principal Surgeon in the service of the
Hon'ble East India Coy.—Calcutta 1742

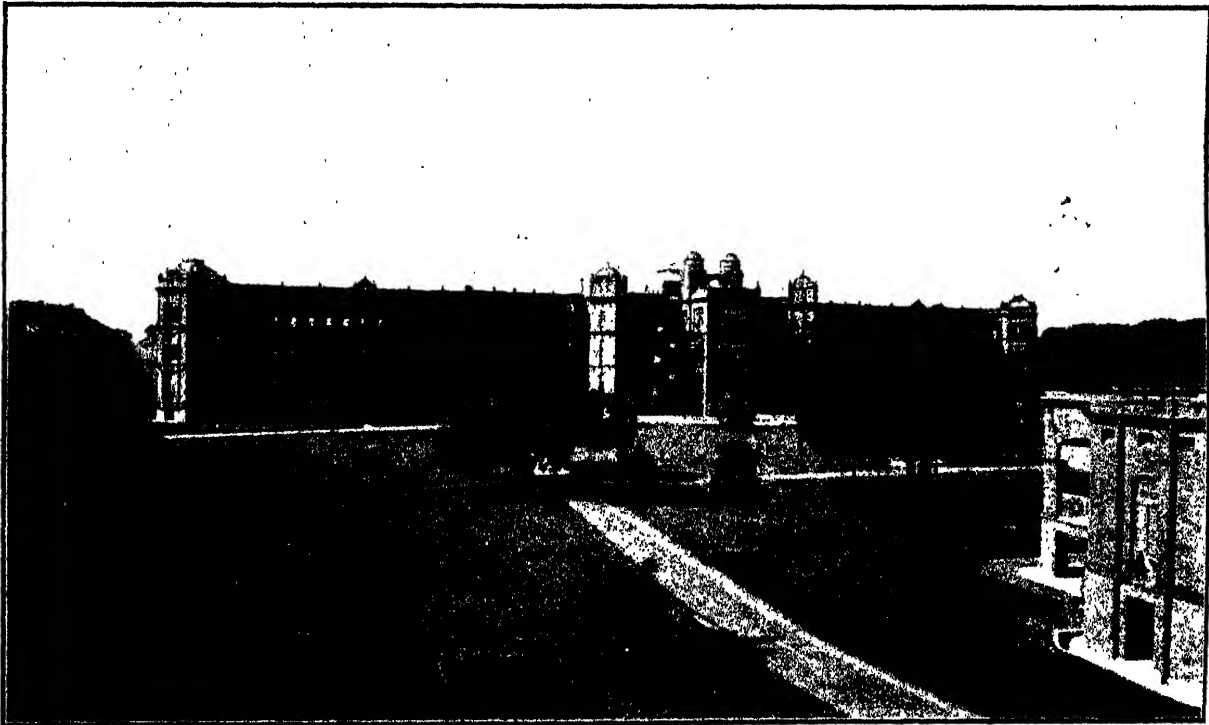
into modern Hinduism (750-1000 A.D.), the shackles of caste were reimposed with an iron vigour, the Brahmins more scrupulously avoided contact with blood or morbid matter," the expiation enjoined in the Shastras became more and more rigid till dissection fell into disuse. The Brahmins withdrew from the profession and it was taken up by another caste, the Vaidyas, or offspring of a Brahman father and a Vasiya mother.

It is not, therefore, to be wondered at that the commentators and imitators of the fathers of Hindu medicine and surgery, being ignorant of anatomy, made many errors, and had to blindly follow their authorities without understanding the nature of the malady. Another great set-back was the abolition of public hospitals on the downfall of Buddhism.

The East India Company's ships trading with India almost always brought with them qualified medical men for the medical charge of the passengers, troops and crews. Many of these medical men accepted "billets" on shore, and in this way a regular medical service grew up.

As a national consequence, some kind of hospital for the treatment of the sick had to be provided, and in the very early days it is probable that temporary houses for hospitals were provided. The first hospital of which we have any record was established in 1707 in Calcutta for the use of the Company's soldiers and sailors, who too often fell a victim to the unhealthy conditions of life in Bengal in those days.

This hospital was a large building, 175 feet long and 60 feet broad. It was built in what is now called



THE PRESIDENCY GENERAL HOSPITAL—CALCUTTA.

During the succeeding centuries the art of medicine fell largely into the hands of Mahomedan practitioners, who attended the ruling classes, and the *kaviraj* of the Hindu became the practitioner of the villages, whose knowledge consisted (according to Hunter), of jumble fragments of Sanskrit texts, a formidable pharmacopœia, supplemented by spells, fasts, and quackery.

This state of things remained till 1822 when the first steps were taken by Government to establish an institution for the instruction of Indian students in the modern medical science. To this we shall revert below.

We come now to the advent of the East India Company and to the medical arrangements made by the Company, first, for the cure of its own servants, and secondly, for the public benefit.

Garstin's Place, on the site now occupied by the Department of Commerce Office. Close by was the old dome-shaped magazine and the cemetery which formed the western part of the compound of St. John's Church, Calcutta.

The hospital was built as the result of frequent representations from the medical officers as to its need. The Company only subscribed Rs. 2,000 towards this very necessary work and left the rest to be collected by public subscription.

Captain Alexander Hamilton, the sailor, who published an account of his travels in the East, in two volumes, in 1744, mentions this old hospital and gives a graphic account of the mortality in Calcutta in those days. He wrote: "One year I was there and there

were reckoned in August about 1,200 English, some military, some servants of the Company, some private merchants residing in the town, and some seamen belonging to shipping laying at the town, and before the beginning of January there were 460 burials registered in the clerk's book of mortality."

This appalling death-rate (of about 380 per mille) may be contrasted with the 12 to 16 per mille death-rate for British soldiers in India at the commencement of the 19th century.

It is no wonder, therefore, that Captain Hamilton commented upon the convenience of having the hospital so near to the burial ground.

Up to 1710 soldiers still lodged in the town, but in that year the hospital compound was walled in, and barracks built for the soldiers.

The regulations of this hospital are recorded in the consultations of 20th August 1713, and they are signed by the famous Dr. William Hamilton, of whom more hereafter.

This old hospital was put into decent repair in 1730, and in 1736 an upper storey was built for the residence of the doctor in charge, and a dispensary or "shop for medicines."

These are recorded to have cost Rs. 4,000.

In 1752 we find the doctors applying for beds for this hospital, and *tuktaposhes* or wooden beds ("charpoys") were provided. In 1760, Members of Council were directed to take it in turns to visit the hospital every week, and the proceedings record much bickering between the medical men in charge and the Council on the cost of the upkeep of the hospital; but by that time the old one had been destroyed in the capture of the city by Siraj-ud-Daula in 1756.

The second hospital seems to have been a temporary one established inside the old Fort, after the recovery of Calcutta, and the statistics of its working in 1857 give a vivid idea of the diseases of those days. "Between February 8th and August 8th of that year, 1,140 patients recovered; of those 54 were from scurvy, 302 bilious fever, and 56 bilious colic; 52 men buried, Between 7th August and 7th November 717 fresh patients were taken in; of those 147 were in putrid fevers, and 155 in putrid fluxes; and 101 were buried."

The management of these early hospitals must be considered to be extravagant and often careless. The medical officers complained that they could not diet the sick at the rate of 6 rupees a month per head, and the Council granted an additional allowance of Rs. 2. As many of the patients were European soldiers and sailors, this cannot be considered extravagant even in the cheap days of old. Even now 6 or 8 rupees a month would be amply sufficient to diet Indian patients.

More and more use appears to have been made of the hospital and by 1762 there were many complaints as to the overcrowding and want of accommodation. The Council, therefore, as a temporary measure, agreed to build a hospital, "near Surman's Gardens," that is in Kidderpore—"with fell trees and covered with straw under the direction of Captain Green, upon the same construction with those he built at Ghyratty, which are found to be extremely good and wholesome lodgings."

It is not quite clear from the records that this temporary hospital was ever occupied; most probably it was, but it was admittedly a temporary measure. It was at first intended to build a new hospital and to close the burial ground, "which is very detrimental to the health of the inhabitants." The old Fort had by this time been converted into the Customs House.*

Before we go on to describe the foundation of the Calcutta General Hospital, we may say something of the other medical institution of the early days.

Small-pox in those days was, of all diseases, the one to be dreaded in all countries and especially in India. Inoculation against small-pox has prevailed from time immemorial in India, and appears to have been introduced among the European population of India about the year 1785. In 1785 an Inoculation Hospital was opened at Dum-Dum, and a considerable number of soldiers and soldiers' children were inoculated.

However, Jenner's great discovery of vaccination received prompt recognition in India, where the dread of small-pox was great and the dangers of inoculation recognised. So within 15 years of the establishment of the Inoculation Hospital the practice was superseded by Vaccination.

In December 1802 the *Calcutta Gazette* contained the announcement that the Governor-General in Council thanks Dr. James Anderson, Dr. John Fleming, Dr. Russell, Dr. Hare and Dr. Shoolbred, "for their successful introduction of vaccination into Calcutta, and on 3rd February 1803 the same *Gazette* announces that "vaccination will be performed free at the Native Hospital in Dharamtolla, on Tuesday and Friday mornings. Dr. Russell was made the first Superintendent of Vaccination."

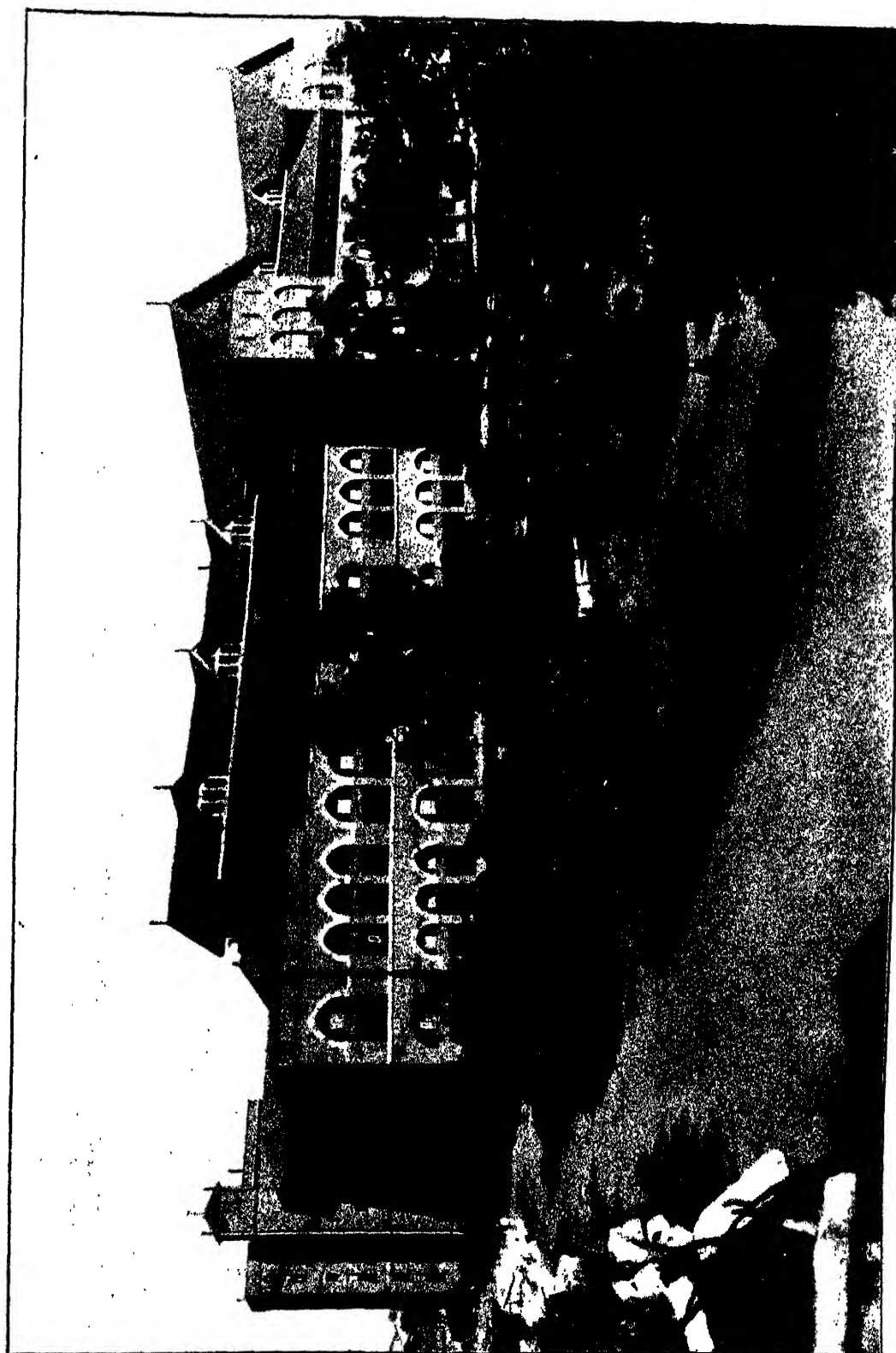
The great necessity for, and the great value of, vaccination in a community like that of Calcutta a hundred years ago is emphasised by the prompt recognition of the value of Jenner's work, and the people of Calcutta subscribed the large sum of £4,000 sterling for a testimonial to Jenner. Vaccination had previously been introduced into Madras, and it is to that Presidency that India is indebted for the introduction of this measure, which has done more for the public health in India than any other single scheme ever introduced by the Sanitary Department.

In October 1792 the *Calcutta Gazette* announced that it was intended to open a hospital for the benefit of natives other than the military hospitals for sepoys. It seems to have been opened in September 1794 and is the hospital above referred to in Dharamtolla.

We must now return to the history of the foundation of the Calcutta General Hospital which still flourishes in Calcutta, and the last of the old buildings only disappeared during the year 1908; the new buildings have been under construction one by one for the past ten years.

Until the publication of an article by the late Major D. M. Moir, I.M.S., when acting as Surgeon Superintendent in 1902 (see *Indian Medical Gazette*, January 1902), much confusion had surrounded the early history of this great hospital.

* See also *Bengal Past and Present*, vol. I, p. 150.



ST. GEORGE'S HOSPITAL—BOMBAY.
NATIVE CLINIC AND DISPENSARY.

This hospital was opened in 1769, as the following extract shows :—

"The first house or centre building was delivered up and taken possession of, June 20th, 1769, being 12 months less 7 days before the limited time of the contract. The west wing was begun to be inhabited by sick people, April 2nd, 1770, and the east wing on June 2nd, by the new recruits. June 13th, 1770, was the last day of my two years' contract."

This is clear enough and puts an end to any confusion as to the date of the opening of the hospital.

The above extract is from a long letter from the Rev. John Zachariah Kiernander to the Council with Warren Hastings as President, dated 1st May 1772.

for the military, the present one being only a temporary one in the Old Fort, destitute of proper accommodations, it is judged expedient that a commodious one be erected as soon as possible, and the Civil Architect attending the Board on this occasion, he is ordered to point out a proper spot for an hospital to be built upon, and at the same time to deliver in a plan of one, with an estimate of the expense." The "Civil Architect" was Mr. J. Fortnom. It may be noted that this hospital was built for the use of the military, and to be officered by the surgeons of the Company's service.

Several sites were suggested and their suitability discussed; one of these was on the Howrah side of the



THE PRESIDENCY GENERAL HOSPITAL—MADRAS.

This is not the place to recount the story of Kiernander, the enterprising and energetic Swedish Missionary who came to India in 1740, and died in Calcutta in 1799, aged 88 years.

We make out the General Hospital to be the third Calcutta Hospital. The first was the one in what is now Garstin's Place, the second after the recovery of Calcutta inside the Fort, the third the "temporary" one in Surman's Gardens; but this scheme appears to have given place to the erection of the General Hospital. The earliest reference to this hospital is contained in the following extract from the Consultation of 29th September 1766 :—

"The Board, taking into consideration the great inconvenience attending the want of a proper hospital

river, at Point Sumatra, "opposite Surman's Gardens," i.e., opposite Kidderpore. Mr. Fortnom submitted detailed plans and estimates for a very fine and "commodious" hospital to be erected at this point. The scheme was too ambitious a one for the impoverished condition of the Company's finances at that date, and finally Mr. Kiernander made an offer of his "Garden House," which he had already built. He accepted the offer of 98,000 rupees for this house and entered on a contract to build the additional buildings required to convert the "garden house" into a hospital, which was opened for use as such on the dates above mentioned.

So much for the early hospitals of Calcutta. Records are not available to trace in detail the early history of similar institutions in Bombay and in

Madras. We may now proceed to give a brief sketch of the Indian Medical Service from its early beginnings in the middle of the 18th century to the present day.*

The Indian Medical Service as now constituted consists of Medical Officers, appointed after open competition in London for service under the Government of India. In organisation it has always been essentially a military service, though from the earliest days a large proportion of its members have always been employed in purely Civil Medical duties. Besides this combined Civil and Military Service there are also in India many officers of the Medical Department of the British Army, the Royal Army Medical Corps. These officers are intended for the care of the British Army in India and are not, except in a few small places, employed on any Civil duties.

There are also Subordinate Medical Departments, both Civil and Military, who will be mentioned further on.

The origin of the Indian Medical Service may be traced back to the very earliest days of the East India Company, and the first ships of the Company, which were sent out to India in 1600 carried surgeons, and John Woodall,† a Surgeon of St. Bartholomew's Hospital, from 1616 to his death in 1653, held the position of Medical Adviser or "General Surgeon" to the Company in London. One of his duties was to select surgeons for the Company's ships trading with India. On arrival in India many of these surgeons obtained employment in the various settlements and factories of the Company, and stayed either for fixed periods attached to the settlement, or resigned and went home, as they pleased.

* For this we are indebted to the many publications of Lieutenant-Colonel D. G. Crawford, I.M.S. (chiefly in the *Indian Medical Gazette*) on the history of the service.

† For an account of John Woodall, see *Indian Medical Gazette*, January 1909.

It was not till the publication of an order, dated 20th October 1763, directing the formation of a service that all the medical men serving under the Company were combined into one body, with effect from 1st January 1764, which, therefore, may be taken as the date of the foundation of the Indian Medical Service as a "Service."

At the same time the service was divided into three "establishments," viz., Bengal, Madras and Bombay, which separation remained in force till the year 1897, when all three were combined into one service.

In this way a regular Medical Service with graded ranks was created out of a heterogeneous body of individuals serving as medical men.

For the first twenty-four years of its existence the service was without any definite head, although the senior surgeon in each Presidency had a vague and indefinite control. In 1786, a Medical Board was constituted, and the first three members in Bengal were: James Ellis, Andrew Williams, and John Fleming, with Thomas Gillies as Secretary. Similar Boards were constituted for Madras and for Bombay. They never exercised any very definite administrative control; the system, however, remained in force till 1857.

In 1766, the Bengal Medical Service was divided into two parts, a purely Military and a purely Civil. This,

it is interesting to note (as the suggestion has often been made since), proved a complete failure, and, as in the present day, the Civil branch was the more popular. The nominal division did not last long. In less than seven years Government found it necessary to unite the two departments again when Mr. Daniel Campbell succeeded to the headship of the service.

"For the next seventy years," writes Lieutenant-Colonel D. G. Crawford, I.M.S., the historian of the service, "its history was uneventful." The question of dividing again into Civil and Military was often



H. H. THE MAHARAJAH OF DURBUNGHA.

Who subscribed a lac of Rupees to Indian Medical Charities during the visit of the Prince of Wales in 1906.

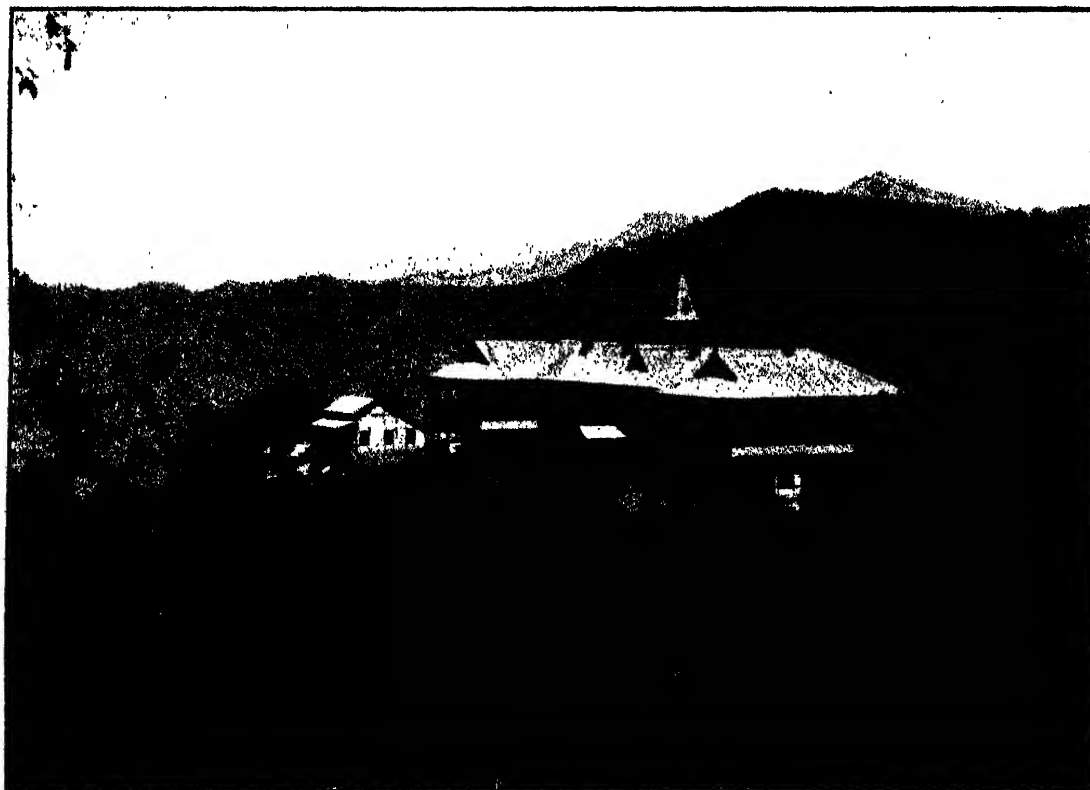
raised and again decided that while the service was primarily a Military one, its members might be "lent to Civil employ," and this arrangement which works well and has stood the test of time is still in force.

The Military portion of the service might well be put in charge of the British troops in India. This would improve the Military side, and would relieve the Home Medical Department (Royal Army Medical Corps). In 1858, after the suppression of the mutiny the fate of all the services of the Indian Government was for some time doubtful. From 1860 to 1865 no candidates were admitted to the Indian Medical Service, and the question was even seriously considered of amalgamating it with the Home Medical Department. Fortunately this impracticable scheme

Commands, but are liable to service anywhere in the Indian Empire.

The mode of admission to the service is by competitive examination, held in London and open to all natural born subjects of His Majesty.

In early days men were appointed in London to a ship, or to a Presidency, and since 1795 a legal diploma to practice has been insisted on. Regulations for admission were duly published, first in 1822, and ever since. Competitive examinations were first held in 1855, the first examination being on 8th January of that year, but the old system of nomination was not finally given up till 1858. The service has ever been a popular one and even early in the 18th century, complaints were made that men were appointed locally



THE WALKER HOSPITAL—SIMLA.

fell through, and the decision was announced by the issue of a Royal Warrant, dated 7th November 1864.

The next epoch of importance in the history of the service came in 1895, when the three Presidential Armies of Bengal, Madras and Bombay were amalgamated into the Indian Army. The officers of the Indian Army were put into one list in the Indian Staff Corps, which at the time of the Delhi Coronation Durbar of 1st January 1903, was changed to Indian Army. In this reorganisation the Indian Medical Service shared and the last admissions to the separate Bengal, Madras and Bombay services took place on 29th July, 1896. Since then medical officers on admission to the service are posted to one or other of the

by the Company to the detriment of the men selected by the Court of Directors at home.

The question of the rank of officers in the service has been practically settled for the past 60 years and more, and it has never been the acute question it became some years ago in the sister Medical Service at home. Titles of Officers and Heads of the Department have changed from time to time, but the relative rank was laid down specifically in the East India Register of 1843 as follows :—

Physician-General	} Ranked with	Brigadier-Generals.
Surgeon-General		
Inspector-General of Hospitals		
Superintending-Surgeons		Lt.-Colonels.
Senior-Surgeons		Majors.
Surgeons		Captains.
Asst. Surgeons		Lieutenants.

In the *Bengal and Agra Gazetteer* of 1841, this is given as follows :—

Members of the Medical Board	as Colonels.
Superintending Surgeons	" Lt.-Colonels
Surgeons	" Captains.
Asst. Surgeons	" Lieutenants.
Veterinary Surgeons (after 20 years' service)	" Captains.
Veterinary Surgeons (after 10 years' service)	" Lieutenants.
Veterinary do. (during first 10 years)	" Cornets.

Up till the year 1880 the Administrative Medical Officers discharged both Civil and Military duties and they had to inspect all hospitals, Civil and Military, within their respective circles. In 1880, the service was recognised, all the Civil Medical Administration was placed under the control of an officer of the rank of Surgeon-General, his title being Surgeon-General with the Government of India and Sanitary Commissioner, the first officer to hold this appointment being J. M. Cunningham, who was selected, and by this promotion passed over seven other senior officers. The next grade was that of Deputy Surgeon-General, and their number was reduced from 13 to 9, viz., four for the Provinces of Bengal, N.-W. Provinces, Punjab and the Central Provinces, and four Military for the Presidency, Lahore, Saugor and Nerbudda Military Districts and for the Punjab Frontier Force, and one a combined Civil and Military appointment for Assam. The four Military Deputy Surgeon-Generals were placed under the P. M. O., His Majesty's Forces in India, an appointment open to the Indian Service, but usually held by an officer of the Home Service. In 1885, the title of the Civil Deputy Surgeon-General was changed to Inspector-General of Civil Hospitals.

It is next to impossible to follow the numerous changes in the Military Department, but these officers are now entitled Principal Medical Officers of the Brigades, Commands, Army Corps or Divisions in accordance with the various changes of the Military Commands.

Up till 1873, officers entering the service were commissioned as Assistant-Surgeons. In 1880, Surgeons were given the rank of Captain on passing out of Netley. The compound titles, Surgeon-Captain, etc., up to the most cumbrous Brigade-Surgeon Lieutenant-Colonel, were introduced in 1891, but at last the present titles, which are likely to remain, were introduced (after the agitation in the Home Service) in the Royal Warrant of 26th August 1898. Purely Military titles are now held by all Indian Medical Service Officers from Lieutenants to Colonels, and custom has sanctioned and accepted them.

Officers of this service serve Government in many capacities, in medical charge of regiments of the Indian Army, and as Principal Medical Officers of "Brigades," "Corps," or "Commands," as they

are called according to the often varying fancies of Military organisation. On the Civil side of the service the majority form the Civil Surgeons of Districts, and this body of Civil Surgeons are the backbone of the service, and from among them are recruited the selected men who hold the teaching appointments in the various medical schools and colleges all over India. The Jail Departments of India are also in the hands of I. M. S. Officers, to whom is due the great efficiency of the Jail Departments. Civil Surgeons are Superintendents of the District Jails, and the large Central Jails are in the executive medical charge of I. M. S. Officers who have joined the Jail Department. It has been found impossible to keep a dual control in jails; the duties of the medical officer are so many and so important that there is little left for a non-Medical Superintendent to do, and even that little is subject to the approval of the medical officer at many points.

The Government of India, therefore, wisely put the whole executive as well as medical charge of the jails of India into the hands of a Medical Superintendent, and the great success of their management has amply justified the wisdom of the Government of India. In olden days Indian Medical Service Officers did many other non-medical work. It was Dr. (afterwards Sir William) O'Shaughnessy-Brooke, who started electric telegraphy in India; it was Dr. Paton to whom India was indebted for the splendidly organised Post Office system. The Assay Department of the Mint has always been managed by medical officers, and until recently the Opium Department has been in similar charge. The fact being that no other body of men had the education and general knowledge, especially of scientific subjects, needed for such work. Of recent years, owing to the natural growth of special professions, these departments are gradually passing into the hands of properly trained men, and the Mint alone of the Minor Scientific Departments is alone dependent for its assays on specially qualified expert medical men.

On the other hand, the resolutions passed at the first Indian Medical Congress held in Calcutta (December 1894), followed 18 months later in the hot weather of 1896 by plague, forced the hands of Government and showed the vital necessity for research work and for Research Laboratories. Now, besides the Central Research Laboratory at Kasauli, there are Pasteur Institutes at Kasauli and Coonoor, and quite recently one has been started in Burma. Every province too has its own Bacteriological Laboratory, excepting Eastern Bengal and Assam, and the enormous amount of good research work now done in India was strikingly illustrated and made known to the general public by the Pathological Section of the Exhibition at the second Indian Medical Congress held in Bombay in the last week of February 1909.



THE CHIEF
TRADING PORTS OF INDIA.

CALCUTTA.

KARACHI.

BOMBAY.

CHITTAGONG.

MADRAS.

RANGOON.

The Port of Calcutta.

INTRODUCTORY.

THE history of the Port of Calcutta may be fairly said to be an epitome of the history of the British Empire in India. Other centres of government, trade, and population, in that era, can claim a longer history. Fort St. David and Cuddalore, Fort St. George and Madras, or the part dowry of Catherine of Braganza at Bombay; but it has been from "Fort William at Bengal" in the first degree that the great expansion of the Empire of India has taken place; and although it is long years since the greater duties of government involved the abandonment of trade by the Honourable East India Company, it is well to recall that the foundations of Empire were laid by traders, who aimed at trade alone, which should be profitable to all parties, European and Indian, and not at conquest.

Nor is it difficult to understand how old Fort William and the villages on the site of early Calcutta came to be the chief trading centre and the cradle of the great city which is now the capital of India and the second city of the British Empire in population. Trade depends on transport, and in the days before the present network of railways had grown up, and when roads were only embryonic, the position of Calcutta at the head of the great riverain system of the Ganges placed it in an unassailable position as an *entrepôt* of trade with the great and fertile plains of Northern India, and beyond the possibility of rivalry by the older Presidency centres. The keynote then of the growth of Calcutta is trade, and this trade its position has commanded, both overseas and inland, from the days when it was founded by the father of the Port and City—Job Charnock, whose grave is now the centre of this British Indian capital.

Rudyard Kipling, as the poet of Anglo-India, is responsible for a gross libel on the founder of the city in his well-known plea for the summer administrative capital—

"Once, two hundred years ago, the trader came,
Meek and tame.
Where his timid foot first halted, there he stayed,
Till mere trade
Grew to empire, and he sent his armies forth
South and north.
Till the country from Peshawur to Ceylon
Was his own.
Thus the midday halt of Charnock—more's the pity!
Grew a city.
As the fungus sprouts chaotic from its bed,
So it spread.
Chance-directed, chance-erected, laid and built
On the silt."

Poet's license has seldom been carried further. Had Job Charnock sought a site for a sanatorium it is not likely that he would have searched the Hooghly stream; but for the practical purposes of trade, which moved him, and reasonable security from disturbance for his trading mart, it would have been difficult for him to find a more fitting local site.

The late Dr. Wilson in his unfortunately uncompleted volumes on the 'Early Annals of the English in Bengal'* has set out the moving story of the difficulties and struggles of the early settlement from the hostility of the country powers; and on the question of the suitability of location he brings out the fact that, many years before Fort William was founded, the Portuguese fleet of traders working with the seasonal winds from their headquarters on the West coast, made the present reach of the river on which Calcutta stands their rendezvous; and annually built a temporary town on the Howrah side of the river at Betor (about where is now Seebpore), for the purposes of trade with the inhabitants. Later the Portuguese established their headquarters further up stream at the town of Hooghly and built a fort. Hooghly being within practical reach of what was then the important town of Satgaon or Saptagram, connected with the Hooghly river by a tributary the Saraswati, which has since shoaled up. After tentative endeavours to build up trade with Bengal from settlements in the neighbourhood of Balasore, the English also established a post at Hooghly. In the year 1686, in consequence of disputes with the agents of the Delhi Emperor and after a tough fight with the Mogul forces, Charnock evacuated Hooghly, and sailed away with his fleet and the Company's movable possessions. Before finally selecting the site of Calcutta he projected settlements at other places, including Ingellee near the mouth of the Hooghly on the western bank, where an action was fought with the Mogul troops; Ooloberia, a few miles below Calcutta, where the Midnapore Canal now takes off; while Chittagong on the Arrakan coast, then a centre for half-caste Portuguese pirates, was favoured by the Home Board of the Company for their Bengal headquarters. Finally in 1690 Charnock settled down on the east bank where is now Calcutta city, then marked by the villages of Govindpur, Kallikatta, and Sutanuti Hât, and the Mogul agents, having by this time realised that there was mutual loss by the restriction of overseas trade, granted their approval to the new settlement.

* Early Annals of the English in Bengal, 2 Vols.
Thacker, Spink & Co.

Other European nations were also alive to the advantages of eastern trade, and the Dutch, who had derived great profit from their pioneer trading in the Eastern Archipelagoes, early established a settlement at Barnagore, now a suburb of northern Calcutta, and later the French at Chandernagore, and the Danes at Serampore; while unsuccessful endeavours were made by the Hanseatic cities to establish a footing in the Hooghly.

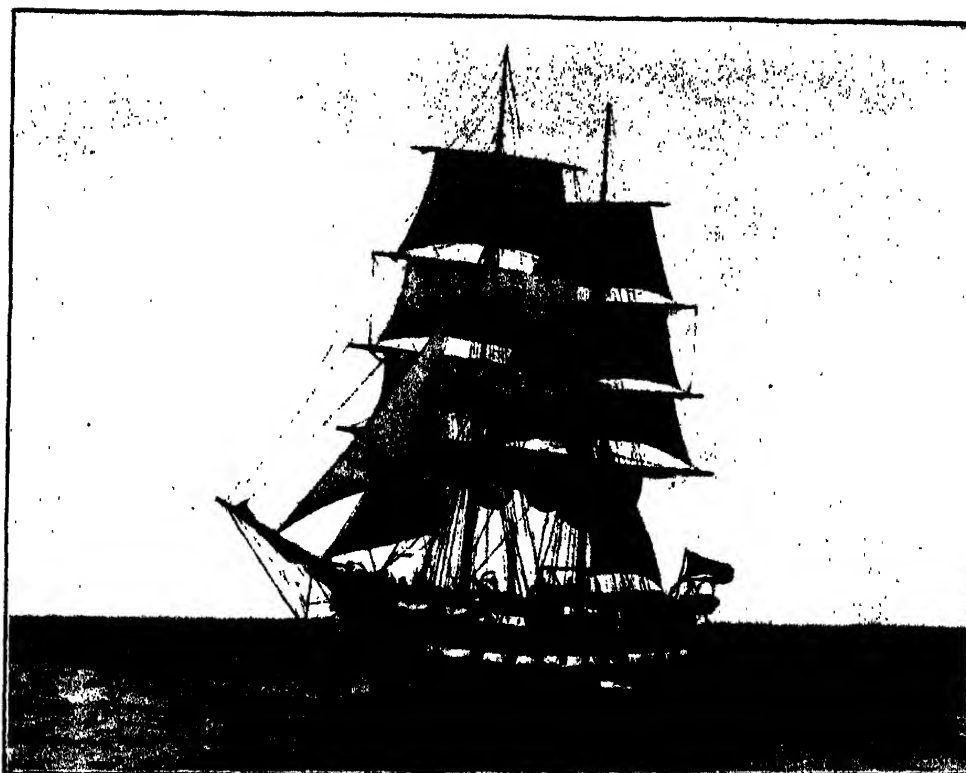
The early records do not give a large amount of information as to the growth of the Port, but its advantages gradually triumphed over the difficulties, hardships, and dangers which were inseparable from a European settlement in the marshy delta of a tropical river. City hygiene was little known or regarded in Europe during the seventeenth century, so that it is not to be wondered at that Calcutta, with all its handicaps, established in its early days a reputation for insalubrity, which it will take many years of city improvements to entirely live down; but it is a fact that at the present day the Bengalis look upon Calcutta as a more desirable place of residence than the country districts of Lower Bengal, and that drainage, sewerage, and water-supply on a great scale have done much to improve the conditions of life. Much, however, remains to be done in these essential features of a modern city, and particularly in the opening out of congested areas.

The course of trade in the early days, as has already been indicated, was practically entirely by the great waterways of the Ganges, and the agents of the Company gradually pushed up country their trading posts, and Moorsheadabad, the erstwhile capital of the Nawabs of Bengal, Dacca a still older Mussulman capital, and Patna in Behar, became important centres of exchange. The Company's ships brought from England 'Europe goods' which were exchanged for 'country produce' silks, cottons, rice, and notably the saltpetre which went far to furnish the staple of war in the great campaigns of the eighteenth century. In those days of hand-loom weaving in Europe, India be it specially noted, supplied cotton goods for the home market; and Calicut had early given its name to 'calico.' In Calcutta the Company established a calico printing factory which stood somewhere about the site of the present Wellesley Place, to the south of "the Park." The great tank, *Lal Dighi*, in the middle of the park, was the main source of the water-supply of the early settlement, and it is interesting to note, that it was proposed at one time to convert it into a dock by cutting an entrance on the south side of the old Fort, somewhere about the line of Koila Ghat Street. In such case the present docks at Kidderpore would have been anticipated by a century and a half. The project, however, was not carried out, and shipping facilities until the middle of the eighteenth century were confined to the quay which ran along the whole of the western, or river face, of old Fort William, where the Company's goods were handled to and from the warehouses which crowded in the old Fort. In this connection it is noteworthy that the records of Government show that in May 1758 Clive informed the Select Committee that, "Mr. Pocock (Admiral Pocock) at his departure

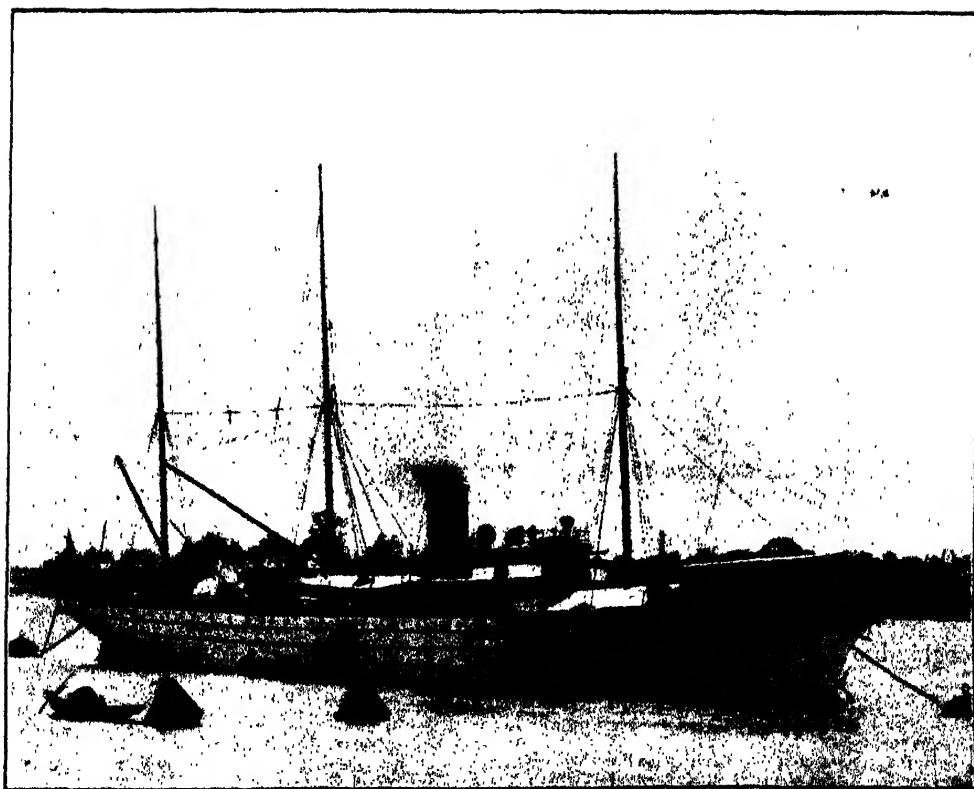
represented to him the necessity of having a dock in Bengal for the reception of His Majesty's ships, in case the squadron should winter here, and as he thinks the expense of making such a dock would be greatly overbalanced by the advantages resulting from having the squadron refit at Bengal instead of Bombay, by which means they would have it in their power to return much earlier to the coast, he hopes, therefore, the Committee will immediately order a survey to be made of the spot most proper to make a dock at, and give directions for its being begun and completed as soon as it possibly can be done." The Committee concurred in this expression of opinion and according to the Editor of the Selections from the Records, from which we quote, this led later to the establishment of the old docks at Kidderpore on the site of Surman's Gardens.

Again in 1760 Benjamin Lacam, who had made a survey of the river, advanced a scheme with the object of extending the accommodation. Sir Charles Stevens says: "He was struck with the advantages of Channel Creek east of Saugor Island and succeeded in persuading the Government to give him a grant." He, however, proceeded to levy tolls on the traffic from Eastern Bengal and the grant was revoked. Channel Creek was known in still older days as Rogues river, and had the reputation of harbouring the Portuguese and Mugh pirates who preyed particularly on the country shipping, and whose depredations necessitated a boom across Garden Reach as late as the mid eighteenth century.

Although there are no salient figures to produce, certain it is that in the sixty odd years from the death of Charnock the Port of Calcutta grew greatly as the volume of trade expanded, and it had become the most important of the Company's settlements. Then, in 1756, came the *déclat*: British Calcutta was temporarily effaced by the forces of the Nawab Seraj-ud-daulah, it was renamed Alinagar, and a tragic chapter added to the history of the Empire. The survivors escaped down stream to Fulta in the Company's ships. In the fall of that year, however, by sea came the succour of England's ships, and in January 1757, the combined forces of Admiral Watson and Clive re-occupied the city, and went forward up stream to the campaigns from which date the expansion of the British Empire in India. Thereafter the trade of Calcutta steadily expanded as the bounds of British India were carried further and further inland. As the responsibilities of administration increased the position of the Company as a trading concern became anomalous, and all trading was finally abandoned to the private enterprise which had been steadily expanding. By the early days of the nineteenth century, Calcutta ships carried on a large trade with China and the Dutch East Indies as well as to Europe, and it is noteworthy that an Indiaman—the *City of Calcutta*—was the first ship to anchor in what is now Melbourne harbour. Whether this ship was actually Calcutta built, the writer cannot say, but about this time an extensive shipbuilding yard existed at Kidderpore.



THE PILOT BRIG "FAMR" AT THE SANDHEADS (OLD STYLE).

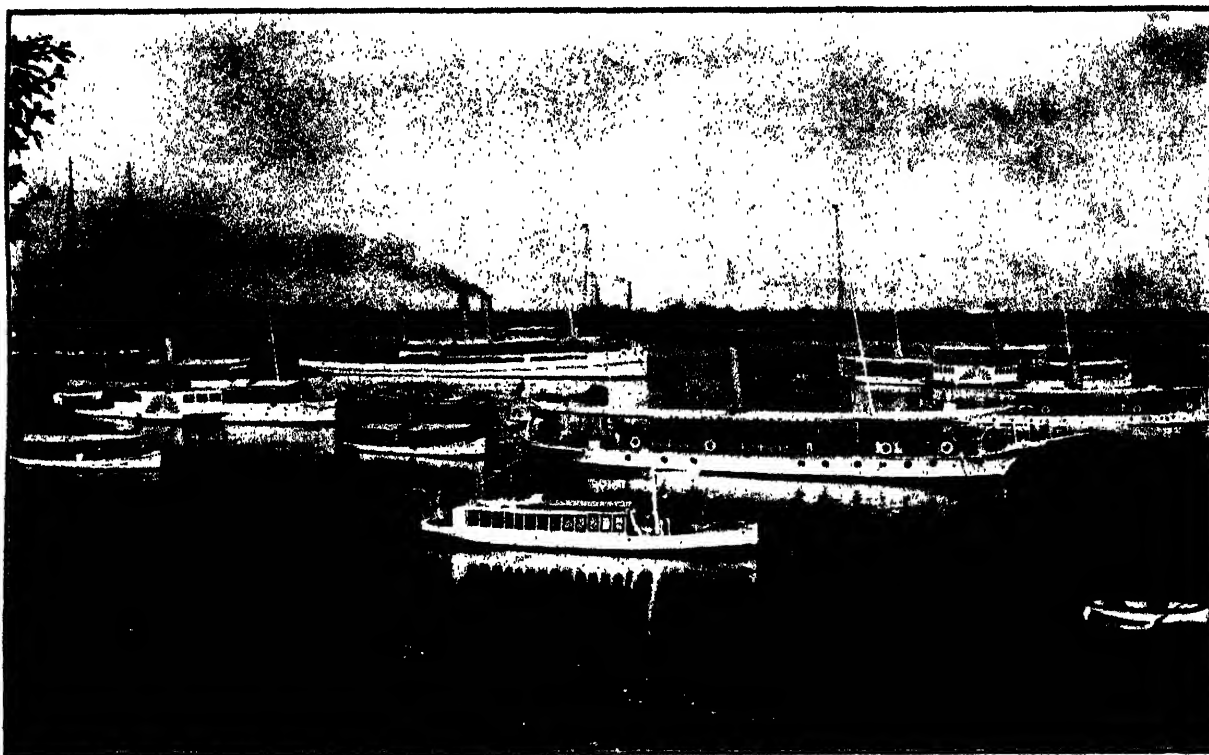


THE STEAM PILOT VESSEL "LADY FRASER" AT ANCHOR IN THE HOOCHIX (NEW STYLE).

THE PORT APPROACHES.

The city and Port of Calcutta is situated some 81 miles from the Saugor, but the area officially buoyed lighted* and surveyed extends nearly 50 miles seawards from Saugor to Pilots Ridge. From the earliest days of European trade, the tortuous and difficulty channels of the approaches to the Port have been a great handicap to shipping; but it is noteworthy that in the seventeenth century the sea-going ships of the Portuguese worked up to Hooghly, 28 miles above where is now Calcutta, English ships up to 1686 used to make the same up river station, while again in 1757 several large vessels of Admiral Watson's fleet were able to push up stream to take the leading part in the destruction of Fort d'Orleans, and the French

beria, and still later changed again to the point where it now flows in. Dying or not dying, however, the fact remains that as a consequence of the efficiency of the survey system† introduced by the Port Trust and continuously under the control of Captain E. W. Petley, R.N., C.I.E., from its establishment, until very recently, the draught of vessels entering the Port has been steadily increased of late years. The regime of the river above the estuary is fairly consistent, except in the section between the mouths of the Damudar and Rupnarain rivers, and it is here that the famous James and Mary shoal is situated. The following description is taken from Mr. Leonard's report of 1865. The general character of the "James and Mary" is a sand about three miles



THE PORT COMMISSIONERS' FLEET OF SURVEY VESSELS.

settlement at Chandernagore.‡ Periodically it is contended that the Hooghly is a dying river, and certainly the above facts would seem to show that the river above Calcutta was more navigable in the early days than is the case now, but there is one considerable factor that tends to vitiate such comparisons. Somewhere in the early days the Damuda river changed its course, and instead of joining the main stream above Hooghly broke through far lower down at Oola-

long, and one-third of a mile in width, placed about the centre of the river, thus forming two channels, called the Eastern and Western Guts. Some parts of this sand are always so joined on to the bank as to reduce greatly the depth of water

‡ In illustration of the far-reaching character of the River Survey as now carried out we quote the following paragraph from the Administration Report for the year 1907-08.

"The following figures show the progress that has been made in the operations of the Survey Branch of the Port and Port Approaches Department,

* There are on the River—120 buoys; 13 gas buoys; 6 light vessels; one unattended light vessel; False Point Lighthouse, Cowcolly Lighthouse, and 6 anchoring lights.

† With regard to this fact it has been pointed out by the Officers of the River Survey that vessels of the draft of Admiral Watson's larger ships, that is about 16 to 18 feet, could still navigate up to Chandernagore with perhaps little greater difficulty.

	1885	1900-01	1903-04	1906-07	1907-08
Miles sounded ...	1295	5864	7679	7956	8082
Small River Charts and notices published ...	20	606	1093	998	994
Number of Buoys (Calcutta to Diamond Harbour) ...	7	30	44	48	50
River Marks ...	57	115	138	229	229

in both Guts; but during the rains, when there is a large fresh water discharge down the river, it is so joined to the right bank as to quite close the Western Gut. Then, when the fresh water discharge of the river is very small, the sand is detached from the right bank and so joined to the left as to close the Eastern Gut. Very often while the changes are taking place, both channels are so bad that there is sometimes as little as six feet of water in the best of them.* Mr. Leonard observes that, when, one river flows into another, the consequence is that a shoal is formed above the junction and a deep channel below. In the rains the Eastern Gut is scoured by the freshets and the ebb tide, and the Western Gut closes. In the dry season, the discharge from the Damudar is small, and the ebb tide runs, consequently, more under the right hand bank of the Hooghly; then the Western Gut opens and the Eastern Gut closes. The sands forming the "James and Mary" are deposited mainly on account of the diminution of the velocity of the current of the main channel, caused by the great body of the water of the Rupnarain meeting the Hooghly at nearly right angles; but the action of the Damudar water has much to do with the shape and character of the shoal.

Although the Damudar is thus held largely to account for this bar, the fact that we have already referred to as to the change of course of this river, tends to show that it is not the only cause, for the shoal receives its name from a ship the *Royal James and Mary*, which was lost there a few years after the founding of Calcutta, in 1694. Other bars which give trouble and which are attributable to the alternating direction of the scour of ebb and flood exist at Moyapur and Royapur, while there are several difficult crossings and channels in the Estuary below Diamond Harbour, and in the shoals that beset the approaches to the river.

* With special reference to the tendency of the *regime* of the River, and Mr. Leonard's remark above referenced as to the depths of water on the James and Mary Shoal, the River Survey Officers have kindly furnished the following note—

"Only once during the last 34 years, and that for two days in January, 1897, has there been less than 7 feet depth available for navigation on the James and Mary, and as this bar governs the navigable capabilities of the river, these cannot be said to have deteriorated.

The annual shoal patch of the James and Mary—as represented by the Eastern Gut bar—from 1875 to 1895, was generally between 8 and 10 feet.

In November 1895 the Eastern Gut rose to 7 feet and a shoal period ensued which lasted till the beginning of March 1896, during which the bar shoaled at one time (4th & 5th February 1896) to 6 feet. However during this time the Western Gut gave an alternative channel with a depth at one time of as much as 15 feet 6 inches and never less than 8 feet 6 inches.

Next year, January 1897, the Eastern Gut after the wreck of the *S. S. City of Canterbury* shoaled to 6 feet 3 inches for one day, and as the Western Gut afforded even less depth this was the shoalest point on record for the James and Mary since 1875, and probably for some years before and remains so till this day. At that time the depth was less than 8 feet for only four days."

In the course of a Report on the growth of Trade in the Port of Calcutta by Mr. F. Palmer, C.I.E., M.I.N.S.T.C.E., Chief Engineer, the following paragraph occurs:—

"The evidence obtained from the more extensive survey system adopted during the past twenty-five years, clearly indicates a gradual improvement of the navigable channels, and no better proof of this can be obtained than the fact that vessels of deeper draft navigate the river with greater safety than ever before. In 1834 definite orders were issued to the Pilots that no vessel with a draft of over 20 feet was to be brought up the river, while in 1905 vessels of 28 feet draft navigated the river, and the average draft of the ten most deeply laden vessels was 27 feet 6 inches."

Several schemes have been proposed for removing the difficulties of the James and Mary shoal, one of the earliest was that of Mr. W. A. Brooks, who in 1865 advocated the cutting of a canal through Hooghly Point. Mr. Leonard devoted much time and thought to this question, and we quote Sir Charles Stevens' summary of his recommendations. In a preliminary paper he suggested that an increased discharge might be obtained from the Damudar at Fulta, and his final advice was that the right bank of the Hooghly should be improved at the junction, and a groyne thrown out below that point. But the main feature of his scheme was the construction on the left bank of the Hooghly of a mile of brushwood spur from Fulta Point, followed by a mile of training wall of burnt clay. The object of this was to throw the downward stream of the Hooghly and Damudar combined into the Western Gut, so that it might alternate there with the flood tides. Mr. Leonard also laid great stress on the necessity for works protecting the mouth of the Rupnarain, which is gradually growing wider, and more in a straight line with the lower Hooghly.

Sir Charles Hartley, to whom Mr. Leonard's preliminary memorandum was submitted, agreed as to bringing a greater flow from the Damudar, and advised the construction at the "James and Mary" of an "isolated work," a wall of rubble stone. The length should be estimated at 10,000 feet, but, in practice, he said, should stop considerably short of the extreme upper and lower limits of the shoal, and should only be continued thence for such lengths, and in such directions as experience might dictate. If this work were carried up to half tide level, it would not encroach on the tidal area, which he thought it very important to maintain, and would keep up a constantly good navigable channel. The work would form an artificial island, and probably the necessary scouring would be effected by the current.

In the year 1895 a cycle of bad conditions in the river recurred, and the late Professor L. F. Vernon Harcourt came out to study the subject and report. As a result he proposed that a training wall, slightly over four miles in length, should be constructed from Fulta Point nearly down to the outlet of the Western Gut. Being concave towards the river it would guide the freshets along it towards the Western Gut; and, by leading them against the sandbank in mid-river, would make them enlarge the Western Gut on its eastern side by scour. "The training wall should be straight towards the lower end, so as not to narrow the channel unduly; and the lower end itself should be curved outwards from the channel, so as to prevent undue scour at the extremity by the sudden release of the confined current, to facilitate the outflow of this current in a suitable direction, and to afford an ample entrance for the influx of the flood tide. The height of the wall should be fixed at low water of ordinary spring tides, as the favourable concave line of the training wall, guiding the powerful freshets, should succeed in producing a sufficient scour to clear out the channel, being aided at first by a sand-pump dredger; and the lower the wall can be kept the less will it interfere with the tidal capacity of the reach. The cost of the work is estimated on the data assumed at Rs. 20,57,000."

Professor Vernon Harcourt's report called forth a great deal of discussion, and it was the opinion of the officers of the Port Trust that it was very doubtful whether such bunds as were proposed could be maintained, or even constructed, in such a fast running stream, and that the cost would be greatly more than that estimated by Mr. Vernon Harcourt. Nothing was done to carry out these proposals, and in 1898 an American Engineer, Mr. Linden W. Bates, made proposals in which he contemplated the removal of Fulta Point by dredgers working inside the existing bank, and the regularisation of the mouth of the Damodar river. This opinion led to the acquisition of a small suction dredger of the type associated with Mr. Bates practice, and although its work was such that the

ever been written, but the information we have already given of the character of the river approaches will have indicated in some measure the great demands which are made upon the Pilots. There is, however, this compensation to its members that while the work is exacting the service is highly remunerative.

THE PORT.

The steady growth of trade during the first half of the nineteenth century, a growth which increased still more rapidly with the transfer of the Government of India to the Crown in 1858, made it apparent that further facilities must be provided for the handling of the trade. Lord Canning in a list of urgent public works given in a despatch to the Secretary of State in 1860 in-



STEAMERS LOADING IN KIDDERPORE DOCK.

feasibility of the designers plans were rather discounted, as it proved comparatively unable to tackle new earth, the experience gained led to the acquisition of the great dredger *Sandpiper*, the operations of which promise to greatly improve the conditions of the bars. Under the administration of the present Vice-Chairman, Mr. F. G. Dumayne, dredging has been given an important place in the scheme of port improvements, and the *Sandpiper* which has been put to work on the Hooghly bars—is accomplishing very efficient work, the benefit of which is greatly felt in the season of low river.

No article on the Port of Calcutta would be complete without a reference to the famed Bengal Pilot service. Unfortunately no history of that service has

cluded a sum of 100 lakhs of rupees for wet docks for Calcutta; and about this time a series of four T-head iron screw pile jetties were constructed on the east bank of the river along the commercial quarter of the town. Direct Government control, as usual, proved inadequate to handle the questions of provision for expanding trade, and an Act was passed in 1866 vesting the Port control in the then Municipal authority, the Justices of the Peace, and a committee was formed by them for this purpose. They found the situation, however, impracticable, and resigned in the following year; their Engineer, however, Mr. Leonard, had framed a series of reports on the Port and approaches which proved of great value. The question of the constitution of a Port authority having become a

burning one, further legislation in the Bengal Council resulted in the constitution of the present Port Trust in 1870. This Act gave the Lieutenant-Governor power to appoint nine Commissioners for making improvements; the Chairman and Vice-Chairman being nominated by the same authority. They were created a corporation with a common seal, and they were empowered to construct wharves, quays, jetties and spurs, landing places, tramways, warehouses, and to make reclamations of the river bank or river-bed. They were authorized to raise loans. When sufficient accommodation had been provided all vessels were to be obliged to load and unload at the Commissioners' wharves, the Commissioners having power to frame a scale of tolls, dues, rates and charges for the landing and shipping of goods. In 1871 the powers of the Conservator of the Port were transferred to the Trust. The Government lands on the strand banks were also transferred to the Trust on payment of an annual quit-rent.

The work of the Port Trust at once justified its constitution and at the end of the year 1879-80 its financial position was shortly as follows.

Inclusive of the sum of ten lakhs of rupees for works previously carried out by Government, which was charged as a debt against the Trust when it was first constituted, the Commissioners had borrowed £602,510 from Government. The loans were all advanced subject to interest at $4\frac{1}{2}$ per cent., and repayment by instalments in thirty years. The Commissioners had, during the ten years, repaid £68,475, and the balance left for consolidation under the Act, which had then been recently passed, was £534,034. The Trust had, furthermore, a permanent debt of £176,500, bearing interest at $4\frac{1}{2}$ per cent. This debt represented the original value of the moorings and vessels made over to the Commissioners on the transfer of the Port to their charge. The Port had, however, acquired new block of the value of £31,458, and after deductions for depreciation, the value of the entire block stood at £187,958. A depreciation reserve fund of £20,000 had been accumulated from the unspent balance of the amounts annually set aside for renewals, and in addition to this fund the Commissioners had to their credit an investment of £35,000, to meet extraordinary and unforeseen expenditure, such as might be required on the occurrence of a cyclone. They had also a reserve fund of £10,000 on account of the jetties, so that the total reserve fund amounted to £65,000. Against the repayable debt and the permanent debt, amounting together to £710,534, the Commissioners held property of the total value of £1,209,296, estimated only on the expenditure incurred on new works, on the purchase of a portion of the land occupied, and in the formation of the reserve fund. If to this were added the value of all lands belonging to the Trust, and which were made over by Government without charge, the whole property might be taken as worth nearly two millions sterling. The total profits derived from the works constructed by the Commissioners between 1870 and 1880 had amounted to £395,638, after payment of interest at $4\frac{1}{2}$ per cent., and of this amount £65,000 had been invested in the

reserve fund and the balance expended on works of improvement.

Although the jetties had been considerably extended, the necessity for wet dock accommodation had become increasingly manifest, and in 1881, on the initiative of the Trust, a Committee was appointed by the Lieutenant-Governor, Sir Ashley Eden, to report on a proposal for the construction of docks at Diamond Harbour. The majority of the members approved the proposal, but great opposition to it was shown by the merchants as a body, who objected to the double staffs and offices which would be entailed. It was also urged that the site was within the known danger zone from cyclonic waves. Sir Rivers Thompson, who succeeded Sir Ashley Eden, appointed a fresh Committee, including several mercantile members, in 1883, and it is from their report that the existing wet docks at Kidderpore have sprung. The Committee found that twenty-one jetties might be provided on the Calcutta side of the river in positions where they could be erected without causing public inconvenience, and twenty on Howrah side between the Botanical Gardens and the lower boundary of the Port. But they estimated that the same amount of accommodation could be provided in a wet dock at not much greater cost, and they pointed out that vessels lying at jetties would have neither the security nor the convenience afforded by a well-arranged wet dock. They considered it also most undesirable to divide the accommodation, and to place half on the Calcutta and half on the Howrah side. Jetties, though they might cost less in the first instance than docks, would cost more to maintain. The Committee, therefore, thought the construction of wet docks was the best and most economical of all measures for affording the increased accommodation required for the commerce of Calcutta.

As a result of this finding, but after further enquiries as to the sanitary aspect of the proposed works, sanction to their construction to the plans of the Engineer to the Trust, the late Mr. William Duff Bruce, M.INST.C.E., was given by the Government of India, and the next following paragraphs are based on the paper read by Mr. Duff Bruce before the Institution of Civil Engineers in 1895.

"Within the limits of that section of the river known as the Port of Calcutta, the Hooghly varies in width between 1,300 feet and 2,000 feet. At the point where it is joined by the Damodar it is about 5,000 feet wide, and from Diamond Harbour, 40 miles below Calcutta, it gradually opens out into an estuary, which at Saugor lighthouse is 15 miles wide.

"Tidal influence, when not checked by freshets during the rains, extends as far as Nuddea. From March to July, when strong southerly winds prevail, the current at spring tides during the early portion of the flood attains a velocity of 5 to 6 miles an hour. During the rainy season, when the discharge of fresh water by the branches from the Ganges is considerable, the down-stream current during the ebb-tide runs at about the same rate; and during heavy freshets in the river the upward current at the flood-tide is hardly perceptible, although the level of the water is raised for many miles above Calcutta. At neap-tides there is no up stream current at all if there are freshets; the

water is headed up and the level rises, but the current is always down-stream. This necessitated an arrangement of dock entrances to permit of vessels entering or leaving on the flood-tide, and when the current in the river was continuously down-stream, as frequently happens during the rainy season.

"The rise and fall of the tide at Calcutta is recorded by a gauge at the Kidderpore dockyard, the zero of which is 6.25 feet below mean sea-level. During the rains, the spring-tides rise to a mean height of 20 feet 6 inches, and fall to 8 feet 6 inches above zero (datum), while neap-tides rise to 15 feet and fall to about 10 feet above datum. In the dry season, which lasts from November to June, the spring tides rise to an average height of 15 feet, and fall to 2½ feet; while neap-tide rise on an average high water in the rainy season is about 18 feet, but during heavy floods has been as much as 22 feet 6 inches. During the dry season the water in the river contains very little silt, but in the rainy season the quantity of solid matter in suspension averages 1 cubic inch to a cubic foot of water, and in heavy floods it contains three times that quantity. To meet this condition, special arrangements were made to allow the mud to deposit before the water enters the docks.

"In selecting the Calcutta side of the river for the docks, the designer had in view the probable necessity of a ship-canal to the river Mutlah, as, owing to the constant changes in the navigable channels of the Hooghly, the navigation of that river might become impracticable. A canal to Mutlah would be merely an extension of the docks, and the heavy cost of lock-entrances to such a canal from the Hooghly would therefore be saved."

Kidderpore was the nearest point to the mercantile part of the city at which ground could be obtained at a reasonable cost, the Committee considered that the docks would there be within easy distance of the merchants' offices and warehouses, and that no inconvenience would result from the transfer of business from the river and jetties to the docks, particularly as the East Indian Railway would be placed in direct communication with the docks by the Jubilee Bridge at Hooghly, then under construction, and long since completed.

Dock No. 1 of the existing docks is 2,600 feet long, and its width for the greater part of its length is 600 feet, and it has an area of 34½ acres. The entrance to the docks is through a tidal basin 600 feet by 680 feet, and from the river to this there are two entrances; one consisting of a lock 60 feet wide and 400 feet long between the gates, and the other an entrance 80 feet wide fitted with a single pair of gates. During the dry season there is never less than 19 feet 6 inches over the sills at low water of spring-tides. During neap-tides in the dry season there is 26 feet and during spring-tides 32 feet of water over the sills at high water.

On the east side of the tidal basin a graving dock was originally constructed 520 feet in length and with an entrance 70 feet wide, and 27 feet 6 inches deep, but this has since been replaced by a dock of much larger dimensions.

At the north-east corner a smaller graving dock was constructed for the use of the Royal Indian Marine, 350 feet in length, with a 60 ft. entrance and 26 feet deep.

To meet the difficulty of changing the water in the docks and thus maintaining hygienic conditions Mr Duff Bruce provided that the normal level of the water in the docks should be higher than that of the river. The extra water being obtained by pumping from the Boat Canal which takes off from Tolly's Nullah.

The original equipment of the docks included fifty-six moveable hydraulic cranes constructed by Messrs Sir W. G. Armstrong, Mitchell & Co., six 11-ton capstans and five 5-ton capstans, a pair of sheer-leg capable of lifting 100 tons, and a complete system of warehouses. The whole of the quays and sheds are lit by electricity. The original cost of the docks and other equipment amounting to Rs. 277,39,911.

Considerable difficulties were met with in the construction of the docks walls, owing to the soft nature of the subsoil, and the water had to be admitted earlier than was contemplated to counteract a movement of the walls.

The provision of wet docks, however, for Calcutta was only half the battle, and for several years commercial Calcutta opposed their use, and it was only by a considerable amount of diplomacy combined with the pressure of evergrowing trade that it was finally arranged as a general principle that imports should be discharged at the jetties, and the ships then worked into the docks to take in export cargo.

Such has been the rate of expansion of the trade of Calcutta port in recent years that little more than a decade of working sufficed to show that the capacity of the docks must be extended, and this has led to a great scheme of development formulated by the present Vice-Chairman, Mr. F. J. Dumayne, and the Chief Engineer, Mr. F. Palmer, M. INST. C.E., C.I.E., and we now quote from a memorandum by the latter written in March 1906.

"The demands for the export trade are growing with such rapidity that largely increased accommodation is imperative. Fortunately the Commissioners are able to provide for the immediate requirements in a very economical manner by extending Dock No. 2. The entrance works, power stations, railway lines, etc., already exist, and it only remains to construct additional berths somewhat ahead of the actual demands. The completed Dock (No. 2) will contain 19 berths, so that deducting the 9 coal berths, there is room for 10 more berths, of which 9 will be for general produce, equal to an increase of about 75 per cent. on the present accommodation. The capacity of the new berths will be largely in excess of the present berths, because of the very much larger transit sheds intended to be built, and it may safely be said that the completed dock will practically double the facilities for export trade. Four of these new berths have already been sanctioned by the Commissioners, the plan for the transit sheds allowing for 96,000 square feet of covered space and 60,000 square feet of uncovered space as compared with 36,000 square feet of covered, and 12,000 square feet of uncovered space at the existing berths. This



KIDDERPORE DOCK FROM THE TIDAL BASIN.

sanctioned addition will, as stated, increase the present quays by 35 per cent. and the storage capacity by 50 per cent. The construction of the remaining five produce berths will be taken in hand before the already-sanctioned extension is completed, and the total capacity of the docks will suffice, allowing for a somewhat greater expansion of traffic than in the past few years, for seven years growth of trade.

"The equipment of the west side of Dock No. 2 with mechanical coal loading plant will very largely add to the capacity for export coal.* The average work done at all the coal exporting ports in the Bristol Channel, including Newport, Cardiff, Barry, Port Talbot, Swansea, and the smaller ports, only amounts to 800 tons per tip per day, whereas the actual working power of the plant is eight or ten times as great; and assuming that the most modern type of elevator-tip to be installed at Calcutta (which will be of better class than the average at the Welsh ports) will give at least as good results, the nine coal berths to be provided on the west side and one at the south end of the dock, each with two elevator-tips, will give a capacity of 5,000,000 tons per annum, reckoning 300 working days in the year. This calculation is based on average results at the ports named, and includes vacancies, stoppages for repairs, irregularity in trade, and all contingencies; and as the total coal exports from Calcutta have grown from 1,292,958 tons in 1898-99 to 2,382,566 tons in 1904-05, the accommodation at Dock No. 2 will be sufficient for the probable trade of 1920. With this question of mechanical coal loading, the ample supply of wagons of a suitable character is intimately connected.

"The capacity of the existing docks can therefore be described as sufficient for the probable growth of trade in general produce exports for seven years, and in the coal exports for fifteen years.

"It is consequently incumbent on the Commissioners to lose no time in obtaining approval and sanction to proposals for the accommodation of the future, and several plans for new docks were discussed by the Committee before it was decided to adopt, at least as a preliminary scheme, the plan now submitted for the consideration of the Commissioners. The proposals include the acquisition of 5,078 bighas (1,678 acres) of land, on which it is possible to construct three large docks designed so as to form one system which will be linked to the existing docks by a connecting channel, the whole being served by one complete system of railway lines.

"In preparing the plan a consideration of almost paramount importance was the maximum size of vessels for which the accommodation should be suited. From the average increase in size of the ten largest vessels trading to the Port, it would appear that an average of 600 feet in length and 70 feet in beam for the largest vessels is probable in the comparatively near future, while an increase to 800 feet in length and 80 feet in beam appears too remote for practical purposes. But the increase in size of the average of the

twenty largest vessels in the world has been so rapid that a length of 1,000 feet and beam of 100 feet must very soon be an accomplished fact. Already vessels of 782 feet in length are being built, and taking all the circumstances into consideration, the known economy of carrying large cargoes, the probable improvements in the navigable conditions of the river Hooghly from the use of suction dredgers, and the general tendency towards the use of larger and still larger vessels, it is considered advisable to make the dock entrances suitable for a much larger vessel than, with the knowledge of to-day, seems likely in the Calcutta trade. The invariable history of dock accommodation all over the world is that the size of vessels rapidly overtakes the size of entrances. At Liverpool, works of enormous magnitude are being carried out to increase the capacity of the entrance locks, and even at the Commissioners existing Kidderpore Docks, which were only opened in 1892, the length of the 60 feet lock entrance has twice had to be extended, and this entrance has already reached its limit of length. Of course, the 80 feet entrance can be used for vessels up to 600 feet in length, but even this is insufficient provision for the future in docks designed to last for a very large number of years. The new docks recently commenced in Bombay will have an entrance 1,000 feet by 100 feet, and length between gates when used as a lock 750 feet; giving all these facts the most careful consideration, it is thought necessary to provide for docks of such magnitude as will probably suffice for fifty years' growth of trade—entrances of 800 feet and 1,000 feet in length and 100 feet in width. These sizes will, undoubtedly, be criticised as being unwarrantably large, but it must be remembered that, while it is easy enough to pass a small vessel through a large entrance, it is impossible to take large vessels through small locks, and while the capacity may be largely in excess of the requirements for very many years to come, and that some loss may be occasioned by the expenditure of unremunerative capital, it will probably be unwise to limit the use of the docks in the future by constructing locks of smaller size. In 1846, a committee appointed by Government to prepare proposals for docks in Calcutta, recommended that provision should be made for vessels "of an average burthen of 400 tons." The average gross registered tonnage to-day is about 5,000 tons and the carrying capacity probably 7,500 tons. This proposal was made only 60 years ago, and as the size of vessels has increased so much in that time there is no reason for supposing that the increase will not continue during the next sixty years. Docks have a life of considerably over sixty years and unless provision is made for vessels far exceeding in size those that now frequent the port, the Commissioners will be providing for the future quite as ineffectively as did the committee of 1846.

"The entrances, therefore, are, as stated, 1,000 and 800 feet long and 100 feet wide, and an intermediate gate will be given in each lock, so that there will be locks of 200, 400, 600, 800, and 1,000 feet long, which will prove economical in time and in water consumed in docking craft of various sizes, including country boats and lighters.

* Coal was first shipped from the Kidderpore Docks in January 1895. The quantity shipped in that month was 89 tons and in that year 78,134 tons. In 1908 the quantity had increased to 3,095,784 tons.

"The outermost dock will be 2,400 feet long by 1,000 feet wide with 'arms' at either end, projecting southwards, one 1,000 feet long and 800 feet wide and the other 1,000 feet long and 600 feet wide, the water area being 86½ acres. Between these 'arms' there is room for the construction of two Graving Docks, one of which will be 1,000 feet long and the other 800 feet long, both with 100 feet wide entrances. On the river face between the two entrance locks 2,200 lineal feet of jetty quayage can be constructed, and the transit sheds for these four berths will be connected to the general railway system. The quayage of Dock No. 3 will be 9,500 lineal feet, and twelve berths varying from 500 feet to 650 feet in length can be arranged. Including the jetty quayage, there will be in this accommodation 11,700 lineal feet of quay and sixteen berths.

"Dock No. 4 is a continuation of the eastern arm of Dock No. 3, and connected thereto by an entrance 100 feet wide. The size of this dock is 4,750 feet in length by 800 feet in width, the area being 87 acres, the quayage 10,800 lineal feet and the number of berths sixteen, varying in length from 500 feet to 700 feet. A channel will connect this dock with the existing docks, so

that the whole system is linked up, and vessels enabled to pass from any point to any point without going out into the river. In the event of an accident to the entrances of the existing docks placing them temporarily out of use, access could be obtained through the new docks and connecting channel.

"Dock No. 5 is 4,000 feet long by 600 feet wide, being a prolongation of the western arm of Dock No. 3 with an entrance 100 feet wide. The water area is 67½ acres, and the quayage 10,400 lineal feet with twenty berths varying from 450 feet to 550 feet in length. It must be remembered that the number of berths here planned is merely an illustration of the capacity of the docks, as the actual length of the berths will be determined from time to time as they are provided. The whole scheme readily lends itself to construction by instalments, Nos. 3, 4 and 5 being built one by one as the demands of trade may require.

"The total dock accommodation shown in this proposal including that which already exists, will consist of—

	Existing.	Proposal.	Total.
Entrances	2	2	4
Area	62.5	283	345.5
Quayage (lineal feet)	11,400	38,700	50,100
Berths	21	62	83

"The depth of sill at the new entrances should not be less than 20 feet, probably more, as compared with 17 feet at the existing docks, and the depth of water in the docks not less than 35 feet eventually. No method has been shown for obtaining the necessary supply of water, as this must be dependent upon the position of the canal south of the docks, proposals for which are now being prepared by Government. If the construction of the canal is not sanctioned the present boat canal can be enlarged, or a new one made.

"It has been suggested that extension of accommodation should be provided by more jetty berths instead of by docks, but it is obvious that the provision of 32,900 lineal feet of jetties (the length of quayage in the propos-

ed docks) would not only have the disadvantage of spreading the work out over an unreasonable length, but would also practically shut out access to the river for a distance of over six miles, whereas the entrance works to the new docks only occupy a frontage of less than three-fourths of a mile. That is to say, the 52 berths in these docks take up river frontage sufficient only for six berths."

At the time of writing this article a large capital sum has been expended towards the execution of this programme. The land for the new dock area is being acquired, the warehouse accommodation throughout the port has been greatly extended, and the mechanical equipment of the docks and jetties brought thoroughly up-to-date.

THE SHIPPING AND TRADE.

To a mercantile nation the history of its ships—those 'shuttles of the loom of Empire'—must always appeal



P. & O. S. S. NAMUR.

with a peculiar fascination. The first Europe ship to surmount the tortuous and difficult passage of the Hooghly River was undoubtedly a Portuguese vessel; possibly a unit of the fleet of Vasco da Gama (1497), for soon after they had established their first footing in India on the Malabar coast, the Portuguese continued their explorations for the development of trade, and early tapped the great Ganges Valley with its rolling tide of river-borne commerce.

The name of the Portuguese pioneer vessel we cannot quote, but the first English ship intended for Hooghly Town was the *Lyonesse*, and she sailed on her long voyage *via* the Cape of Good Hope in 1650. As Sir Chas. Stevens writes—"the Agents at Madras would not permit her to attempt the navigation of the river to that place (Hooghly) and she was sent only as far as Balasore with a cargo of money and goods valued at £7,336-17-5." The difficulty of the river for many a day restricted the free movement of ships, and that part of the story is dealt with in the section of this article dealing with the approaches to the Port. The first English sea-going ship to actually navigate the Hooghly River was the *Falcon*, which in 1678 conveyed to Hooghly Town a cargo valued at over £40,000, and, by a curious coincidence, it appears that a *Falcon* was the first steam vessel that came up the river.

The season for the despatch of the home fleet was in the early months of the year, and the London Board of Directors wrote the Council as early as February 11, 1756, offering rewards as a stimulation to captains of vessels despatched late in the season; this letter, by the way, must have reached Calcutta when Fort William was in the hands of Siraj-ud-daulah.

"We have revived our orders for encouraging the Commanders of such ships as may happen to be despatched from Bengal and Fort St. George after the 3rd March to use their best endeavours to get about the Cape of Good Hope and thereby gain their passage home the same season, by promising a gratuity of two hundred guineas in case of a French war and at other times one hundred guineas; at the same time they are acquainted that at whatever time they are despatched, if it shall appear they do not use their best endeavours to gain their passage, they are liable to be rendered incapable of the Company's service, which we mention for your information in order for your reminding the Commanders thereof and for your doing on your part whatever may be necessary for encouraging and enforcing their compliance with this part of their instructions. Upon occasion of some late differences with the owners of our shipping with respect to demurrage, it is necessary to make a standing rule and you are to observe it as such accordingly. Carefully take notice whether the Commanders of our European ships loiter or mis-spend their time."

The voyage to England was long and tedious, six or eight months, and to the natural risks of the sea, were added those of war; for England throughout the eighteenth century, was more often at war, than at peace, and the only warning a Company's ship oft time re-

ceived was the hail of an enemy's frigate. Swift voyages were, however, made by fast ships, who rivalled the later performances of the famous clippers, and it is on record that the sloop *Syren* in the year 1758, made the voyage to England "in less than four months." Mention of war risks, recalls the fact that the head of the Bay was a favourite cruising ground for French frigates, and many a vessel has been so captured at the Sand-heads.

The following return of shipping and ships dues for the four months ended 30th April 1759 shows the revenue of the Port of Calcutta one and a half centuries ago.* This statement is taken from the India Office records and is entitled "An account of pass money due to the Hon'ble Company on the several ships and vessels which have sailed out of this port (Calcutta) betwixt the first day of January 1759* and this 30th April 1759."

	Rs.	As.	P.	Rs.	As.	P.
SHIP.— <i>Muxadabad</i> —burthen 300 tons ..	300	0	0			
Bankshall duty ..	10	0	0			
Ingellee Anchorage ..	3	0	0			
				313	0	0
SHIP.— <i>Doddalay</i> —150 tons ..	150	0	0			
Bankshall duty and anchorage ..	13	0	0			
				163	0	0
SHIP.— <i>Welcome</i> —100 tons ..	100	0	0			
Bankshall duty and anchorage ..	13	0	0			
				113	0	0
SKOW.— <i>Nancy</i> —60 tons ..	60	0	0			
Bank-hall duty and anchorage ..	13	0	0			
				73	0	0
SKOW.— <i>Alla Dowlet</i> —100 tons ..	100	0	0			
Bankshall duty and anchorage ..	13	0	0			
				113	0	0
SLLOOP.— <i>George</i> —30 tons ..	30	0	0			
Bankshall duty and anchorage ..	13	0	0			
				43	0	0
KETCH.— <i>Bonetta</i> —95 tons ..	95	0	0			
Bankshall duty and anchorage ..	13	0	0			
				108	0	0
SKOW.— <i>Betty</i> —100 tons ..	100	0	0			
Bankshall duty and anchorage ..	13	0	0			
				113	0	0
SHIP.— <i>Fort William</i> —200 tons ..	200	0	0			
Bankshall duty and anchorage ..	13	0	0			
				213	0	0
SKOW.— <i>Carolina</i> —80 tons ..	80	0	0			
Bankshall duty and anchorage ..	13	0	0			
				93	0	0
SLLOOP.— <i>Huazermull</i> —20 tons ..	20	0	0			
Bankshall duty and anchorage ..	13	0	0			
				33	0	0
SHIP.— <i>Drake</i> —280 tons ..	280	0	0			
Bankshall duty and anchorage ..	13	0	0			
				293	0	0
SKOW.— <i>Fanny</i> —80 tons ..	80	0	0			
Bankshall duty and anchorage ..	13	0	0			
				93	0	0
				Current	Rs.	1,764 0 0

The Bankshall was the old Port Office of the Honourable East India Company, and its site is indicated by the Bankshall Street of modern Calcutta. Ingellee, on the west bank of the Hooghly estuary, was the anchorage at which it was customary to work out some of the cargo to lighten the vessels before negotiating the river channels. As we have already mentioned, Ingellee was one of the places at which Charnock essayed a footing after the evacuation of Hooghly.

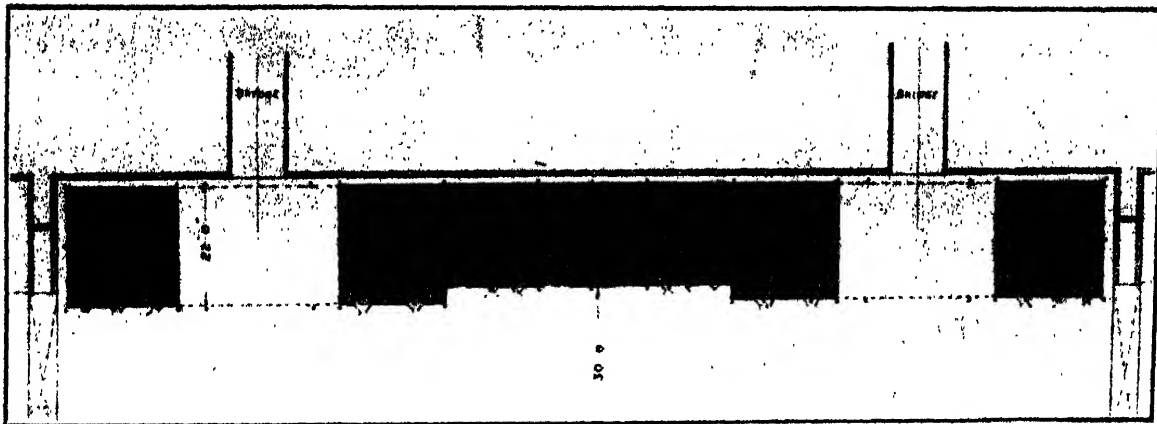
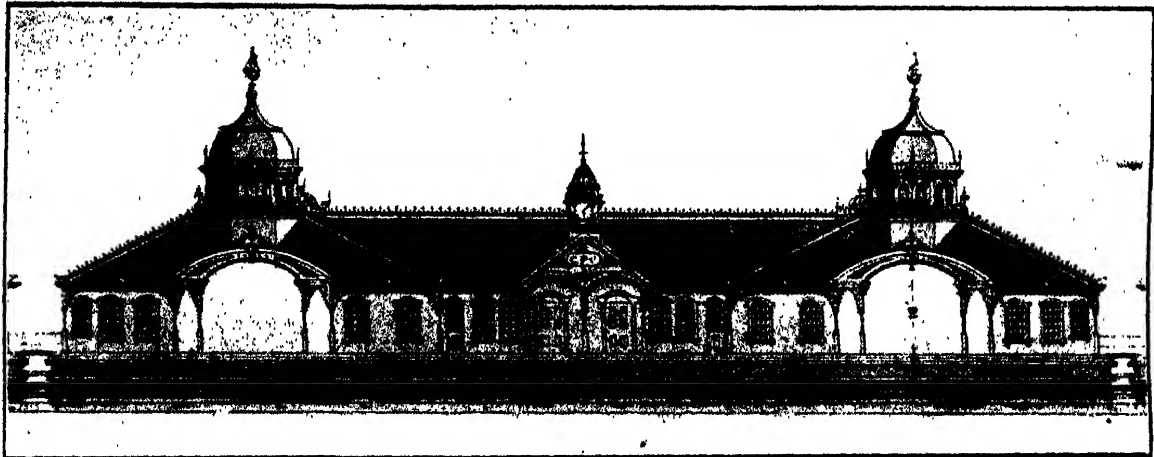
* Vols. I and II, Early Annals of the English in Bengal, give a number of lists of vessels of the Company's Europe fleet in the first quarter of the eighteenth century from which it would appear that the tonnage ran up to 400 tons with an average armament of some 30 guns.

The larger vessels shown on the table were, no doubt, part of the Europe ships for that season—the *Muxad-abad* (Moorshedabad), the *Doddalay*, the *Fort William*, and the *Drake*. The *Doddalay* was one of the vessels which were in the port in June 1756, and from its decks the fugitives saw the great conflagration which destroyed Fort William and the settlement.

A *Show*, by the way, was a vessel with two masts resembling the main and foremast of a ship, and a third small mast just abaft and close to the mainmast carrying a trysail.

the effect of the expansion then taking place was not yet reflexed in the shipping and trade. By 1705-6 however (quoting Sir Charles Stevens) 170 ships of a total burden of 57,606 came to the Port from places outside the territories of the three Presidencies, and 184 ships with an aggregate tonnage of 67,785 went out to such places.

From the earliest days it had been a cardinal point of the Company's policy to put every restriction on outside traders, and this continued to be the case in degree until the early days of the nineteenth century



PROPOSED NEW PASSENGER LANDING STAGE FOR OCEAN-GOING VESSELS AT OUTRAM GHAT, CALCUTTA.
THE ILLUSTRATIONS SHOW THE CENTRAL PONTOON OF THREE.

Bankshall, etc., duties, or Port dues, for the four months quoted amounted to less than two thousand rupees, and in the ensuing year 1st May 1759 to 30th April 1760 there sailed from Calcutta "30 sloops and vessels yielding Rs. 3,964 in pass money or one rupee a ton." For the year 1908-09 the Budget of the Port Commissioners of Calcutta estimated the revenue at nearly 120 lakhs of rupees. The period quoted was, however, one of great trade depression, for although the victories of Admiral Watson and Lord Clive had re-established the Company's authority,

when in 1813 the embargo was finally removed. This measure at once resulted in a great increase of tonnage, which by 1817-18 amounted to 428 ships and 161,346 tons.

The following particulars are taken from an advertisement for shipping charters in 1813. "Sealed proposals will be received at the office of the Secretary to the Board of Trade (Calcutta) for freighting for one voyage ships built with teak of the burthen of three hundred tons or upwards to carry cargoes from the Port of Calcutta to the Port of London." "The ships

shall have three flush decks, or two complete decks and a poop, and be coppered." "The ships shall be armed as follows:—

Ships of 300 tons to 400 tons not to have less than 12 carronades, 9 pounders.

Ships of 400 tons to 500 tons not to have less than 14 carronades, 9 pounders.

Ships of 500 tons to 600 tons not to have less than 16 carronades, 12 pounders.

Ships of 600 tons or upwards not to have less than 18 carronades, 12 pounders.

Every ship to carry a stand of arms and a cutlass for every man on board.

Every ship to carry not less than thirty rounds of powder and shot.

Every ship to have a boarding net. (Should these articles not be procurable substitutes to be allowed at the discretion of the Master Attendant.)

The crew of each ship on her departure from Bengal shall be composed of two-thirds at least of European seamen, provided they can be procured.

Should any part of the crew consist of lascars they shall be reckoned in the proportion of 45 lascars to thirty European seamen, but three-fourths at least of the lascars, employed on each ship, shall be composed of natives of the Honourable Company's territories."

Twenty-five years later (1842) the number of ships entered inwards was 646 with a total tonnage of 262,251.

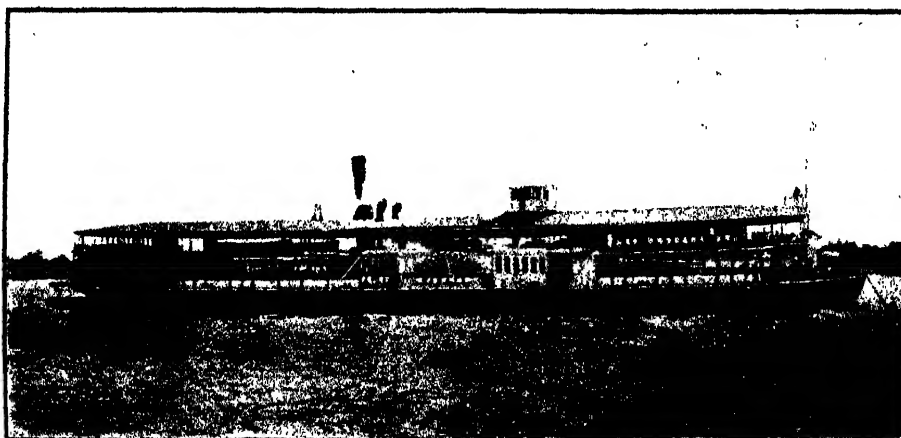
Throughout the period with which we have been dealing the wooden ship was, of course, the type construction, and the progress of naval architecture was along conservative lines. The era of phenomenal expansion of trade and shipping is arrived at with the introduction of iron ships and steam propulsion. Before glancing at this later chapter, however, we must note the ship-building industry which flourished on the Hooghly in the days when Indian teak-built ships formed no

insignificant portion of the fleet of wooden walls of Old England.

The *Calcutta Gazette* of November 11th, 1813, records "the launch of the fine new ship of 1,200 tons, which took place at the yard of Messrs. Kyds on Monday." The launch was attended by "His Excellency the Governor-General, the Countess of Loudon and Moira, the Earl of Minto, Sir George Nugent, and almost all the beauty, rank and fashion of Calcutta. She was named the *General Kyd* by the Countess of Loudon.

The launch was succeeded by a

tiffin, at which thirteen toasts are recorded. We cannot quote them all although they reflect the spirit of the times. The first, proposed by Earl Moira, was "The *General Kyd*," and success to the establishment who have launched so fine a ship." The sixth we must also give, it was "The Duke of Clarence and the Navy, and may the Port of Calcutta succeed in convincing the world that it is capable



DESPATCH STEAMER "MADAYA," INLAND RIVER SERVICE.



I. G. S. N. COY.'S STEAMER "LAHORE" WITH TWO FLATS IN TOW.

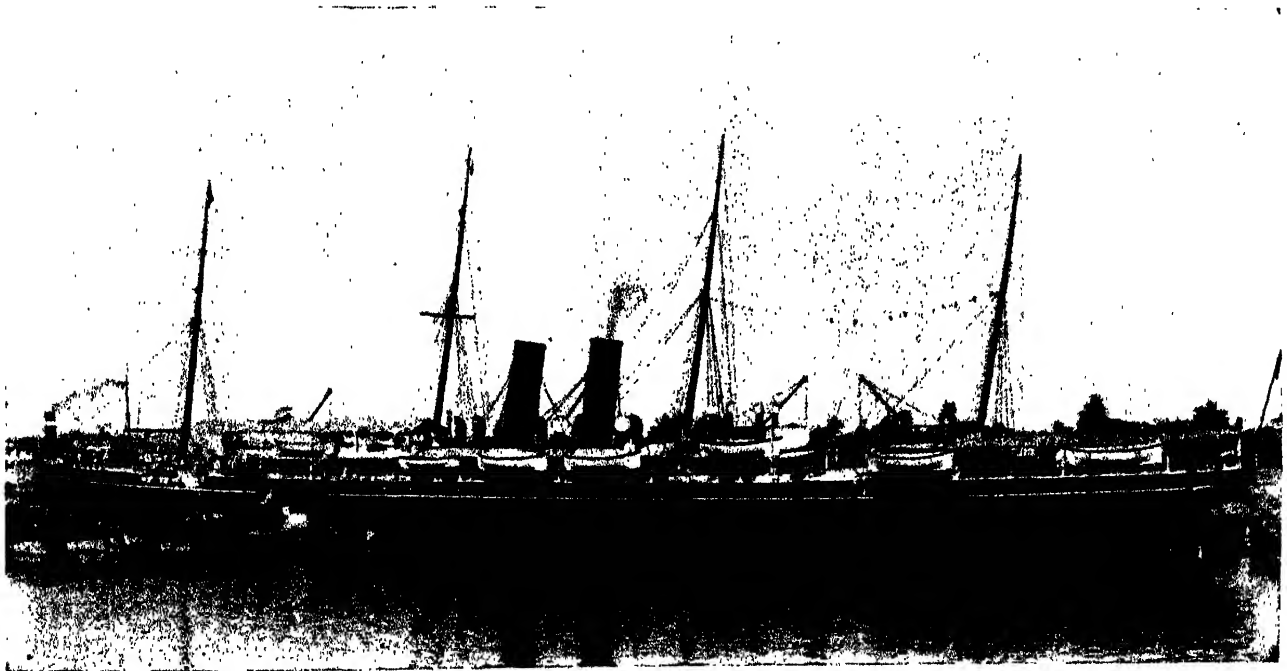
of adding to the Naval strength of the Empire." That Messrs. Kyd's yard was not alone in building fine ships is shown by the same *Gazette* which records the launch of another vessel of 1,200 tons from the yard of Messrs. Gilmore & Co. This vessel was christened by Sir George Nugent the *Vansittart* and was built for the Company's service.

Steamships built of steel have now almost entirely ousted the picturesque sailing ships from the Hooghly.

A table of the past and present vessels of their fleet issued by the Peninsular and Oriental Steam Navigation Company gives in compact form a review of the great growth of steam navigation in the East. Beginning with the wooden paddle steamer *William Fawcett* in 1829 of 206 tons, by 1850 the type vessel was the *Ganges* of 1,190 tons, iron built, but still

mediate' type of vessels of the P. and O. fleet, and a regular visitor to the Port of Calcutta.

No article dealing with the shipping of the Port would be complete without a reference to the vessels that ply on the inland waterways which extend through the great plain of Northern India and through Assam to the Himalayas. These vessels are indeed the complement to the great ocean-going ships which take up and discharge cargoes in the Port, and they serve the duty of distributaries. The function and scope of this far-reaching system of waterways has been to some extent obscured by the great systems of railways which now converge upon the Port, but throughout the greater part of its history it has been these waterways which fed its trade and which still indeed contribute greatly to its commerce.



THE P. & O. S.S. "HIMALAYA."

a paddle boat. In 1860, the first *Massilia*, one of the last of the paddle steamers, was built, her tonnage being 1,640. In 1870 tonnage took a long step forward with the *Australia*, 3,664 tons gross and screw propelled. In the next decade, in 1881, the *Rome* was built, with a tonnage of 5,013, subsequently lengthened in 1892 with a tonnage of 5,628. This ship was re-named the *Vectis*. In 1894, the *Caledonia*, now a seasonal visitor to the Port of Calcutta, was built, her tonnage being 7,558, with triple expansion engines of 11,000 h.p. The list closes with the fine "M" class vessels of 10,500 tons and 13,000 h.p. These last vessels, however, have not yet visited Calcutta Port, and we select for reproduction a photograph of the S.S. *Namur*, which is one of the largest of the 'inter-

From the early days of English settlements in Bengal till the mid nineteenth century the inland trade was entirely carried in country boats of the types which every visitor to the port has seen. Their design is of immemorial antiquity, and it is particularly interesting to note that the model boats recently unearthed by Professor Flinders Petrie from tombs of ancient Egypt, several thousand years B. C., show the same high stern for the steersman and low spoon-shaped bows.

Very early in the history of steam navigation, steam propelled vessels were built for the Ganges trade, and these were the pioneers of the extensive flotillas owned by the India General Steam Navigation Co., the Rivers Steam Navigation Co., the Calcutta Steam Navigation Co., and other concerns. The services

maintained by them reach far up the Ganges stream during the season, while both the Surma and the Brahmapootra valleys in Assam are served by these vessels. The photograph reproduced on the previous page shows the 'India General' steamer *Lahore* with a heavy tow lashed on either beam. This boat is one of a class of powerful steamers engaged in towing flats, and vessels of this class go up to as much as 1,500 indicated horse-power, which is as much as that of many ocean-going steamers. Her dimensions are 280 feet \times 35 \times 9 and on a draught of 6 feet she can tow flats carrying 80,000 maunds of cargo (3,200 short tons).

The other vessel shown—the *Madaya*—is of the mail boat type. Her leading dimensions are 253 feet \times 36 feet \times 9 feet and she has a carrying capacity of 17,000 maunds with 6 feet draught.

THE PORT IN 1909.

We cannot do better by way of conclusion than reproduce the following extract from the note of Mr. F. J. Dumayne, the Vice-Chairman, on the Port Budget for the year 1909-10.

"The position in which the Trust stands as regards its income and expenditure at the time of framing this Budget, will be better appreciated by looking at the progress that has been made in recent years. In 1905-06 the income had risen to Rs. 89½ lakhs, in 1906-07 to Rs. 100 lakhs, in 1907-08 to Rs. 109½ lakhs or at the rate of 10 lakhs of rupees a year, and Rs. 119½ lakhs was estimated for the current year, the indications being in favour of as much being earned. From the accounts for 11 months ending 28th February, an income of at least Rs. 120 lakhs would seem to be assured, which means a further advance of Rs. 10½ lakhs. The enhancement of the river due on coal accounts for some portion of this increase, but it is mainly attributable to the construction of many remunerative works, and a general improvement in the various sources from which the Commissioners derive their income. This result, it will be observed, has been obtained although very unfavourable conditions prevailed throughout the year in regard to some portion of the trade of the Port, and the Committee are satisfied, on the figures placed before them, especially as the prospects for trade are now better than they were, that the income for 1909-10 may safely be estimated at Rs. 1,25,15,000.

"The following figures which are brought down to 31st January 1909, exhibit the position of the Trust in regard to its assets and liabilities :—

ASSETS:—		
Block	...	Rs. *8,87,87,356
Funds in hand for Capital works	...	" 54,02,277
		<u>9,41,89,633</u>
LIABILITIES:—		
Debts due to Government	"	3,07,23,599
Due to Debenture holders	"	5,06,85,500
		<u>8,14,09,099</u>
Total	"	8,14,09,099
Less amount held at credit of sinking funds (estimated for February and March 1909)	...	" †73,75,426
		<u>Rs. 7,40,33,673</u>
The following funds have also been accumulated, <i>vis.</i> :—		
Replacement of vessels	Rs.	5,22,019
Fire Insurance	"	7,01,812
Revenue Reserve fund...	"	<u>30,32,175</u>
		<u>Rs. 42,56,006</u>

"The total assets therefore amount, in round numbers, to Rs. 984 lakhs and the liabilities to Rs. 740 lakhs only.

"Provision has been made in the Budget for an expenditure on new works and acquisition of land of Rs. 103½ lakhs, which covers the estimated cost of the acquisition of all the land required for the Dock Extension Scheme. Debenture Loans to the amount of at least Rs. 100 lakhs will therefore have to be issued in the course of the year to raise funds for the Capital works included in the programme set out in detail in the estimate of receipts and expenditure under Capital Account. Meanwhile, with the sanction of Government, the sum of £250,000 has already been raised in sterling on bills, in order to provide funds for the works that will be carried out in the early part of the year. It is estimated that, after providing for interest and sinking fund charges for one-half year on such debenture loan that there will be a surplus next year of Rs. 3,03,689.

"The works carried out by the Commissioners, it may be mentioned, are of such substantial character as docks, wharves, jetties, warehouses, etc., which can only very gradually depreciate; of railways which are maintained in an up-to-date state out of income, and of land estates which are annually increasing in value. The financial position of the Trust may therefore in view of these facts and of the figures given above be considered to be most satisfactory."

* This sum includes Rs. 287 lakhs for the Docks opened in 1894 and Rs. 325 lakhs for new works carried out in the last eight years. The Block account does not include the Strand Bank Lands valued at Rs. 60 lakhs.



The Port of Bombay.

BOMBAY is the capital and the chief sea-port of Western India. It is the most southerly of a group of islands which engineering skill has transformed into a peninsula, and its area is about twenty-two square miles. Previous to the acquisition of Bombay by the British in 1661 the East India Company had held trading ports at Madras, on the Hooghly, and elsewhere; but Bombay is interesting as England's first step towards dominion in the East, and is itself a monument to the imperial and commercial spirit of the race. It is the only valuable possession which we owe to the Stuarts, having been ceded to Great Britain as part of the dowry of the Portuguese Infanta, Catherine, on her marriage with King Charles II. Up to this period Surat had been the principal seat of British enterprise and settlement in Western India, but in 1668 King Charles, considering Bombay an unprofitable possession, handed it over to the East India Company, to be held by them on payment of the annual rent of £10 in gold.

One of the first things the Company set itself to accomplish on assuming possession was the construction of a harbour, with docks. A good deal of money was expended on the defences of the island, but in addition to the discouragement due to the unhealthiness of the place, the early settlers in Bombay had powerful outside enemies to contend against, and the English, cooped up in their little islands, could make but small headway. But they understood the real value and possibilities of Bombay and as early as 1686, or less than twenty years from the time the Company took over the island, orders were sent out from Home to transfer the seat of Government in Western India from Surat to Bombay, which was declared to be "the seat of the power and trade of the English nation in the East Indies." Then followed the dissensions between the old and the new East India Companies regarding trade, which threw the settlement into a state of anarchy and checked for many years the progress of the port, until in 1708, the two Companies, having adjusted their difficulties, were fused into the United East India Company, and progress once more began to make headway. In 1736 the first graving docks were opened, but nearly one hundred years previous to this the East India Company had been obliged to build ships of war to defend their trade against the Malabar pirates. These ships had been built at Surat, where the Company's factories had been first established; but with the construction of docks at Bombay a period of remarkable activity in this direction may be said to have set in. The docks were in constant use from the day of their completion, and the dockyard was for a long period celebrated for turning out first-class men-of-war. In the year 1800, a 4-gun frigate, the *Cornwallis*, of 1,363 tons, was built for the East India

Company, and afterwards the Admiralty ordered men-of-war for the King's Navy to be constructed. A number of war vessels were built in this dockyard, carrying from 10 to 86 guns. The last man-of-war was the *Meanee*, built in 1847, carrying 84 guns, and of 2,400 tons burden. Merchant vessels of the largest class constructed in those days, of from 1,300 to 1,400 tons burden, for the cotton trade, with China, were also built in these docks, and from the year 1840 a number of steamers were built, besides schooners, pilot boats, and a number of vessels of smaller size. The timber having to be brought from a great distance, ships built at Bombay were very costly, but being entirely constructed of teak, they were very durable. In 1843 there belonged to Bombay, mostly to native merchants, 58 ships of the aggregate burden of 32,000 tons, of which six only were under 200 tons. These ships were employed in the China trade, and in the trade to England and other places, and were all built in the Company's old dockyards, known as the Upper, Middle, and Lower Old Bombay docks respectively. In 1854, two large steamers, the *Assaye* and the *Punjab*, each of 1,800 tons, were built at these docks, but since that year, owing chiefly to the introduction of iron instead of wood for ship-building, and the consequent advantage of having large ships built in England, ship-building at Bombay has been restricted to a smaller class of vessel. Before the introduction of steam, Bombay possessed, in addition to the larger class of vessels abovementioned, a numerous fleet of native craft of very large aggregate tonnage. These vessels, besides furnishing the city with its local requirements, used to coast from Cape Comorin to the Gulf of Cutch, and sometimes cross the sea to Muscat and the ports in the Arabian Gulf. Up to the early part of the nineteenth century, however, the total trade of the Port of Bombay was of no very great amount. The small and sterile islands of Bombay afforded no produce for exportation, nor did the whole Presidency yield, with the exception of cotton, rice, and coffee, any of the great colonial staples, a circumstance which may perhaps be ascribed to the impolitic restraints upon the employment of British settlers and capital that were long imposed by law, and acted upon with peculiar rigour in Bombay and the sister Presidency of Madras. Bombay in those days, before the introduction of railways, was also much less favourably situated in respect of internal communications, and all the inland trade had to be carried on by means of roads that were seldom in a fit condition for cart-traffic, and could only be used by pack-bullocks and camels, while trade with the Deccan had to struggle with the mountain roads. But with the abolition of the transit duties, by which the inland trade had been grievously oppressed, the abolition of the restrictive system in 1815 and, later on, the construction



Photo. by Bourne & Shepherd.

BOMBAY HARBOUR FROM THE APOLLO BUNDER.

of lines of railway to the principal markets in the interior, a great increase in the trade of the town resulted. Then, the establishment of the overland monthly service to England in 1838 made Bombay the Imperial port of India, though her claims were not officially recognised till 1868, since when Bombay has been the port of arrival and departure of all English mails and troop-

acres of metalled wharf, about six acres of sheds, over two miles of permanent wharf walling forming two basins and one bunder. At the time this scheme was first put in hand (1862), the commercial prospects of Bombay appeared particularly bright; the Civil War in America was just beginning and the blockade of the ports in the Southern States was cutting short the cotton supply of England; and that was affecting the exportation of cotton from Bombay. The produce of all the great cotton fields of India, Nagpur, Berar, Guzerat, the South Mahratta country found its way to Bombay in order to be exported to England with all possible despatch while the high prices ruled and the blockade of the Southern ports lasted. The effect upon the city of Bombay and all the vast interests connected with it was magical. So sudden was the demand, so high the range of price, and so vast the profits, that an economic disturbance set in. Three years of insane speculation followed, during which financial associations formed for various purposes sprang up like mushrooms. Then came a period of chilling reverses. The long-protracted resistance of the Southern States collapsed with startling rapidity, great quantities of American cotton entered the English market, the price of the Bombay cotton fell, and many of the enterprises that had been founded upon the expectation that those prices would be maintained, began to crumble to pieces. Nevertheless, a mass of real

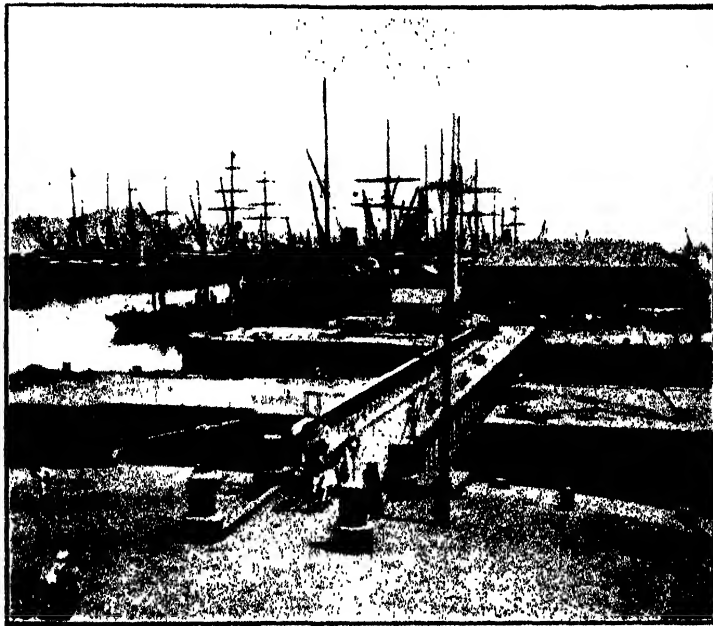


Photo. by Bourne & Shepherd.

PRINCE'S DOCK, BOMBAY.

ships. With the opening of the Suez Canal her commercial importance was still further enhanced, and with the triumph of engineering skill over the precipitous wall of the Ghats, she became the western terminus of the Indian Railway systems.

It was in 1858, when the Elphinstone Land and Press Company was formed, that the Port of Bombay, as we know it to-day, began to assume shape. The Company commenced operations by reclaiming about twenty-two acres of sea ground, and building warehouses for merchandise. They also erected a cotton press, which did not prove a success. Four years later a larger scheme was taken in hand, and in the ensuing nine years over seven millions of cubic yards of material were deposited, a land and dock estate was laid out, containing for the land estate over one hundred acres of building plots, nine miles of roads from forty to eighty feet wide, and ten miles of drains. The dock estate comprised about seventy acres of wharfage and sites for sheds and warehouses, ten



Photo by Bourne & Shepherd.

PRINCE'S DOCK, BOMBAY.

wealth, to be reckoned by many millions sterling, had been poured into the lap of Bombay, already a wealthy place, and this was quite enough to justify a large expansion of legitimate enterprise. Sir Bartle Frere, who was Governor of Bombay at the time, took the most lively interest in the progress of railways within his jurisdiction, and three big lines were under construction. The line from Bombay to Madras was completed, and the line from Bombay ascending the Western Ghat on the way towards Calcutta, and that from Bombay passing up the coast of Guzerat towards Rajputana, were in full progress. In fact, every means was adopted during the period of abnormal prosperity to improve the existing lines of communication and to inaugurate new ones. In Bombay itself, among the many failures, must be mentioned the big scheme for reclaiming a large expanse of land from the sea. This was known as the Back Bay Reclamation scheme, and it proved ultimately to be in excess of local needs. Still, in its inception it was so well framed that the Government held shares in it, but they were wise enough to unload before the crash came. One reclamation company held its ground throughout the crisis, however, and that was the Elphinstone. Among other things the Company had entered into an agreement with the Government to provide upwards of one hundred acres of land for the Terminus of the Great Indian Peninsula Railway and other purposes, receiving in return the right to reclaim from the sea for their own advantage an area of 250 acres, fronting the properties they had previously acquired. By this arrangement the Company secured a monopoly of the harbour frontage opposite the native town where the largest part of the country trade had been centered for years, whilst from the proximity to the Railway Terminus they were in a position to subject a very considerable portion of the entire trade of the port to wharfage and other dues. When the crisis set in, the Company had practically completed their contract with the Government, and it was at this juncture that the Government of Bombay strongly urged upon the Government of India the desirability of buying out the Company and thus

regaining possession of the harbour foreshore, and of placing its administration in the hands of a public Trust. After prolonged negotiations it was agreed in 1869 to purchase the Company's rights at the par value of the paid-up capital, and on the 30th April 1870, the property was taken over by the Government from the Company for a sum the equivalent of two millions sterling. The intention of this purchase was to make over to the proposed Trust, on behalf of the trade, the possible commercial profits on the investment, Government consenting to supply the capital on the best terms but on the very distinct

understanding that the transaction should involve no addition to the public outlay and no reduction in the public income.

The Act constituting the Board of Trustees was not passed until 1873, but in the meantime, with effect from the purchase of the Elphinstone property, the whole of the properties to be made over were managed by a department of Government on behalf of the new Trust, in anticipation of its formation. The first Board was appointed in June 1873; it consisted of Colonel J. A. Ballard, C.B., R.E., as Chairman, and nine Trustees, of whom three were Government officials. Shortly after this orders were issued abolishing the Harbour and Pilotage Board, and authorising the Trustees to receive the port dues, pilotage or other fees leviable from, or in respect of vessels entering, leaving or using the port. The properties vested in the Board comprised a good part of the eastern foreshore of the island, but there were gaps occupied by private

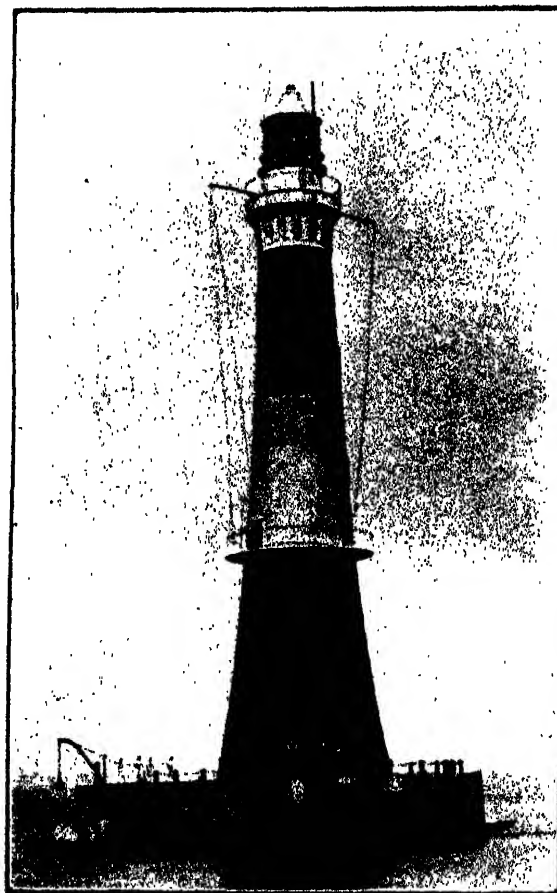


Photo. by Bourne & Shepherd.
THE PRONGS LIGHTHOUSE, BOMBAY.

wharf-owners, who were able to enter into competition with the Port Trust Board, and so keep down the wharfage rates, but this did not result in satisfaction to the Trade, and only caused confusion and inconvenience. Accordingly in 1879-80 the Government, on behalf of the Trust, bought out the private foreshore owners' rights for a sum of nearly 76 lakhs of rupees, and consequent on this acquisition of a monopoly of the foreshore rights, the Board was reconstituted in 1879 by an Act which gave the Chamber of Commerce power to elect five of the Trustees, the other seven and the Chairman

being nominated by the Government; and it was provided that not less than three of the Trustees should be natives of India residing in the city of Bombay. The Board as at present constituted consists of the Chairman, appointed by Government, five Members elected by the Chamber of Commerce, three native members nominated by Government as representing native mercantile interests, and the Director of the Royal Indian Marine, the Secretary to Government, Public Works Department (Railways), the Municipal Commissioner of Bombay, and the Collector of Land Revenue and Customs. The present Chairman is the Hon. Sir Walter Hughes, C.I.E., who has held the post since May 1892.

was in round figures, Rs. 220 lakhs, including a deficit of six lakhs of rupees on the working during the interregnum pending the constitution of the Board. During the first ten years the improvements carried out were mainly on the Elphinstone Estate, including the construction of the Prince's Dock, which was the first wet dock of any magnitude constructed in Asia. The foundation-stone was laid with masonic honours by H. R.H. the Prince of Wales (now the King-Emperor) on the 11th November 1875; the work was completed in 1879, and on the 10th April in that year the last stone of the walls was laid, and the water admitted into the dock with great ceremony by the late Sir Richard Temple, then Governor of Bombay.

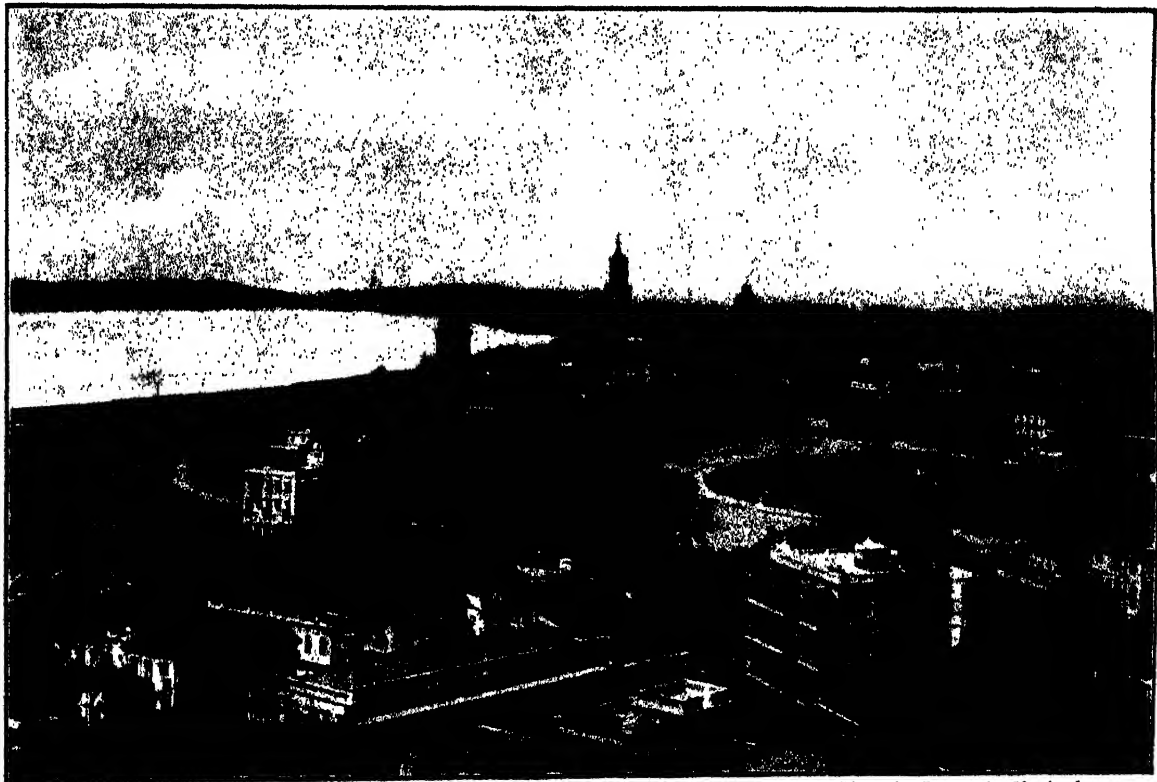


Photo. by Bourne & Shepherd.

VIEW OF BOMBAY AND BACK BAY.

IMPROVEMENTS MADE BY THE PORT TRUST.

The properties vested in the Board of Trustees at the outset comprised the Elphinstone Estate, the Mody Bay Reclamation, the Apollo Bay Reclamation, the Wellington Reclamation, the Apollo Pier, the Tank Bunder Estate (Timber Ponds), the Customs Bonded Warehouses, the Kasara Bunder, the Saw Mills property, and the whole of the property of the old Harbour and Pilotage Board, comprising principally of the Light-Houses at Kennery, Colaba, and on the Dolphin Rock, the Mazagon Pier, the Signal stations, the Lightships, Pilot Schooners and other craft. The total debt of the Board on account of these properties

The dimensions of the dock are 1,460 feet long by 1,000 feet broad, with a water area of 30 acres, and a total length of quay of 6,910 feet, including the effective portion of the harbour wall. It has two entrances, one 66 feet and the other 55 feet wide, and the sill at the entrance is $25\frac{1}{4}$ feet below high water ordinary neap tides. The dock is completely equipped with sheds and with cranes which with the dock gates and the bridge across the entrance, are worked by hydraulic power. The material excavated in forming the dock was utilised for the further reclamation of Mody Bay to the south of the site. Among other works carried out in the first ten years were, the completion of the Frere Road across Mody Bay together with other roads necessary for the convenience of trade

and to open up building sites; the erection of an extensive range of permanent sheds for the storage of grain, and the construction of a range of seven large warehouses adjacent to the Prince's Dock, for the storage of piece goods and other imports.

Very soon after the opening of the Prince's Dock it became evident that an extension of the dock accommodation was necessary for vessels of deep draught, and in January 1885 a contract was entered into by the Trust for that purpose. The site selected was immediately south of the Prince's Dock, occupying the space originally taken up by the Musjid and Nicol Bunder Basins. Work was commenced on the new dock, now called the Victoria Dock, in January 1885, and was completed in February 1889, when the water was let in by His Excellency the Governor. The contractors were Messrs. Kirby and Sons, who also constructed the Prince's Dock, and with them was associated in the work, Mr. John Fleming, who started the work of reclamation and various other improvements in the port at the early part of its history. The Victoria Dock comprises a water area of 25 acres and affords a total length of quay of 7,805 feet, including the effective length of the outer harbour wall. It has two entrances, one from the sea, 80 feet wide, and the other, 64 feet wide, communicating with the Prince's Dock. The sills in both cases are 27½ feet below high water ordinary neap tides. The berths are fully equipped with hydraulic cranes and extensive ranges of sheds.

The Merewether Dry Dock was the next large work taken in hand. Work was commenced in February 1889, and the dock was opened in March 1891. It has a length of 530 feet, and a breadth of 65½ feet at the entrance, with a depth on sill of 25½ feet at high water ordinary neap tides. Other extensive works carried out during the period 1883-93 were huge blocks of offices for the dock and traffic staff and for the administrative offices, ranges of warehouses for import goods at Victoria Dock, the filling up of the basin and other improvements at Apollo Bunder, and the deepening of the channel of the Prince's Dock.

From 1893 to 1903 no single work of great magnitude was undertaken, but a large number of works of great importance were in progress for increasing the facilities for trade and shipping, and for developing the Board's properties, at a total expenditure of Rs. 66 lakhs. The wet docks were provided with a largely extended series of double-storied sheds; for the coal trade a new wharf was built, provision was made for the storage in bulk of kerosine oil, and the Ballard Pier was constructed for the convenience of the passenger traffic. Great progress was also made with the development of the Trustees' properties on the north, including the Sewri, Frere Land, Tank Bunder and Mazagon Estates, and much attention was devoted to the construction of new roads, and the further improvement of old ones. The present docking accommodation consists of the Prince's and Victoria Wet Docks and the Merewether Dry Dock; but a large and important scheme for further dock accommodation is now being carried out, and on the preliminary work in connection with this scheme, the operations of the past few years have been mainly confined.

The new works now in course of construction may be classified under four main heads, as follows:—(1) The new Wet and Dry Docks; (2) The Port Trust Railway; (3) The Reclamation between Mazagon and Sewri; and (4) The New Bulk Oil Depôt at Sewri. It became necessary, in the first instance, to provide for the large traffic at Mody Bay which will be displaced by the new docks, and for this purpose two broad jetties have been formed at Mazagon by reclamation, affording storage space to the extent of 26 acres, with an aggregate wharf frontage of 5,800 feet. The Ballard Pier is being extended for a length of 825 feet seaward, to form the southern boundary of the area to be reclaimed by the material excavated in forming the new docks, and large purchases in the shape of new dredging plant and a fleet of capacious steel barges, with a special steam-tug to be used for the conveyance of material for reclamations have been made. A new hydraulic power station, with engines of 300 horse-power has been provided, partly to supplement the power available in the present docks, but with provision also for increase to afford the additional power which will be necessary for cranes, etc., in the new docks. The area of the premises of the Prince's Dock has been extended, and further and improved facilities for the manganese ore trade have been provided, and new sheds and more cranes have been added to the existing docks. The foundation-stone of the new dock, the Alexandra Dock, was laid by H. R. H. the Prince of Wales during his visit to Bombay in November 1905, and the scheme also includes a new dry dock, opening off the wet dock, both capable of taking ships of the largest size that are likely to visit the port within the next thirty or forty years. The area of the wet dock is 49½ acres, with a length of quay of 16,035 linear feet, including the harbour or outer wall. The entrance is 100 feet in width, with a depth of sill of 35½ feet below mean high water level. The dry dock is to be 1,000 feet in length, entrance 100 feet wide with sill 33½ feet below high water ordinary neap tides. The estimated cost of these docks is Rs. 3,47,43,159. The contract with Messrs. Price, Wills and Reeves for the excavation and masonry was signed in April 1904, and provides for the entire completion of the works by 1st June 1911.

The Port Trust Railway scheme comprises two sections of line, of which the first is the G. I. P. Railway Harbour Branch, extending from Coorla to the Mazagon Depôt, with chord connection to the B.-B. and C. I. Railway. This section is being made at the expense of, and is to be worked by, the G. I. P. Ry. Co. The Port Trust section extends from the Mazagon Depôt to the docks, a length of three miles. The cost of the Port Trust section was originally estimated at Rs. 10,26,113, while the estimated cost of the G. I. P. Harbour Branch was Rs. 53,50,404. But while the cost of the former has been considerably enhanced owing to the rise in the price of the properties acquired since the estimate was framed, there will be a reduction in the cost of the latter, as it is not intended to make the goods depôt at Mazagon of the maximum dimensions in the first instance.

The main idea of the reclamation between Mazagon and Sewri is to provide space for the grain, seed and cotton trades, and for a new stores yard for the G. I. P. Ry. Co., and this involves the reclamation of 232 acres, with a wharf frontage of one and a quarter miles. A far larger scheme than this is, however, in course of being carried into effect, for the Trustees considered it prudent to make provision for future requirements, and they were advised that by enlarging the area to be reclaimed, it would be possible to carry out the reclamation at a very much reduced cost by means of suction dredgers, which would pump the mud of the foreshore, of which there was a large deposit, on to the area to be reclaimed. A project was drawn upon these lines for reclaiming a total area of 583 acres, with wharf frontage of upwards of $2\frac{1}{2}$ miles in length, the whole giving an addition of about $4\frac{1}{2}$ per cent. to the area of the city. This work was put in hand in 1907, and will be completed about the same time as the new docks.

The remaining necessary improvement was the removal of the Bulk Oil Depôt and the Timber Ponds to Sewri. This work is well in progress, and includes a site of 61 acres, a deep water berth for the tank steamers and a length of 11,000 feet of low pier for the pipe line from steamers to tanks.

Since 1879-80, the Port Trust has had control of practically the whole trade of the port, the exceptions being coal and stores imported for the use of the P. & O. and the B. I. Steam Navigation Companies, and of the G. I. P. and B.-B. and C. I. Railways, which are landed at the wharves owned by these Companies. With the exception of coal, kerosine, timber and dates, the greater part of the foreign trade of Bombay is dealt with at the docks. The coasting trade carried in square-rigged vessels is also dealt with principally at the docks, while that carried by country craft goes wholly to the bunders and tidal basins, the chief of which are: the Sassoon Dock, Victoria Dock, Arthur, and Carnac Basins, to the south of the present docks, and the Kassara Basin to the north. A very considerable business is at present done at these, but as the facilities for the trade are gradually completed at the northern end of the harbour, the trade will naturally be shifted to that locality, and the basins and bunders at the Colaba end of the island be set free for reclamation and sites for building purposes. The immediate result of the completion of the works now in progress will be to double the existing dock accommodation of the Port, to provide a splendid Graving Dock, and to shift the heavy traffic in cotton and other goods from

the roads and streets to its proper place, the goods depôt and the vicinity of the docks. The aim of the Trustees is, not to raise as large a revenue as possible, as would be the object of a private concern, but after due provision for docking and shipping facilities, present and future, to make the charges on commerce as light as possible; and the fact that Bombay is one of the cheapest ports in the world is sufficient evidence that the legitimate claims of trade have been well kept in view, while making full provision for present facilities and future expansion.

EXPENDITURE AND REVENUE.

The total expenditure on Capital Account up to the 31st March 1907 stood at Rs. 6,97,35,422, of which Rs. 4,26,10,773 represented the expenditure on ordinary works. The balance was distributed as follows:—

Prince's Dock ..	Rs. 89,90,350
Victoria Dock ..	Rs. 1,19,21,529
Merewether Dry Dock ..	Rs. 11,68,259
New Docks Construction..	Rs. 50,44,510

This large debt is represented by properties which have largely increased since they were originally taken over by the Trust, and which are steadily increasing in value, and the repayment of the debentures is provided for by regular Sinking Funds. Since the completion of the Victoria Dock the entire expenditure has been met by 4 per cent. debenture loans, which stand in high favour with the investing public. The last four loans have been raised at prices ranging from $\frac{1}{2}$ to $4\frac{1}{2}$ per cent. premium. The above figures give the cost price of the properties vesting in the Board, but from this amount Rs. 19,68,007 must be deducted, as this amount was realised from the sale of land, plant, etc. Taking into account the two loans issued in 1906-7, the total debt of the Board at the close of the year amounted to Rs. 6,67,30,637, of which Rs. 3,02,14,961 are due to Government, and Rs. 3,65,15,676 are on account of the foreshore securities and debenture loans.

The income and expenditure of the Board have each shown a progressive increase for some years past. At the same time, the surplus of income over expenditure has increased in a far greater ratio, and whereas the average surplus for the five years ending 1901-2 was Rs. 1,00,836, the surplus for the year 1906-7 was Rs. 10,41,870. The revenue receipts have, for the past ten years, shown an average growth of about three lakhs of rupees per annum.



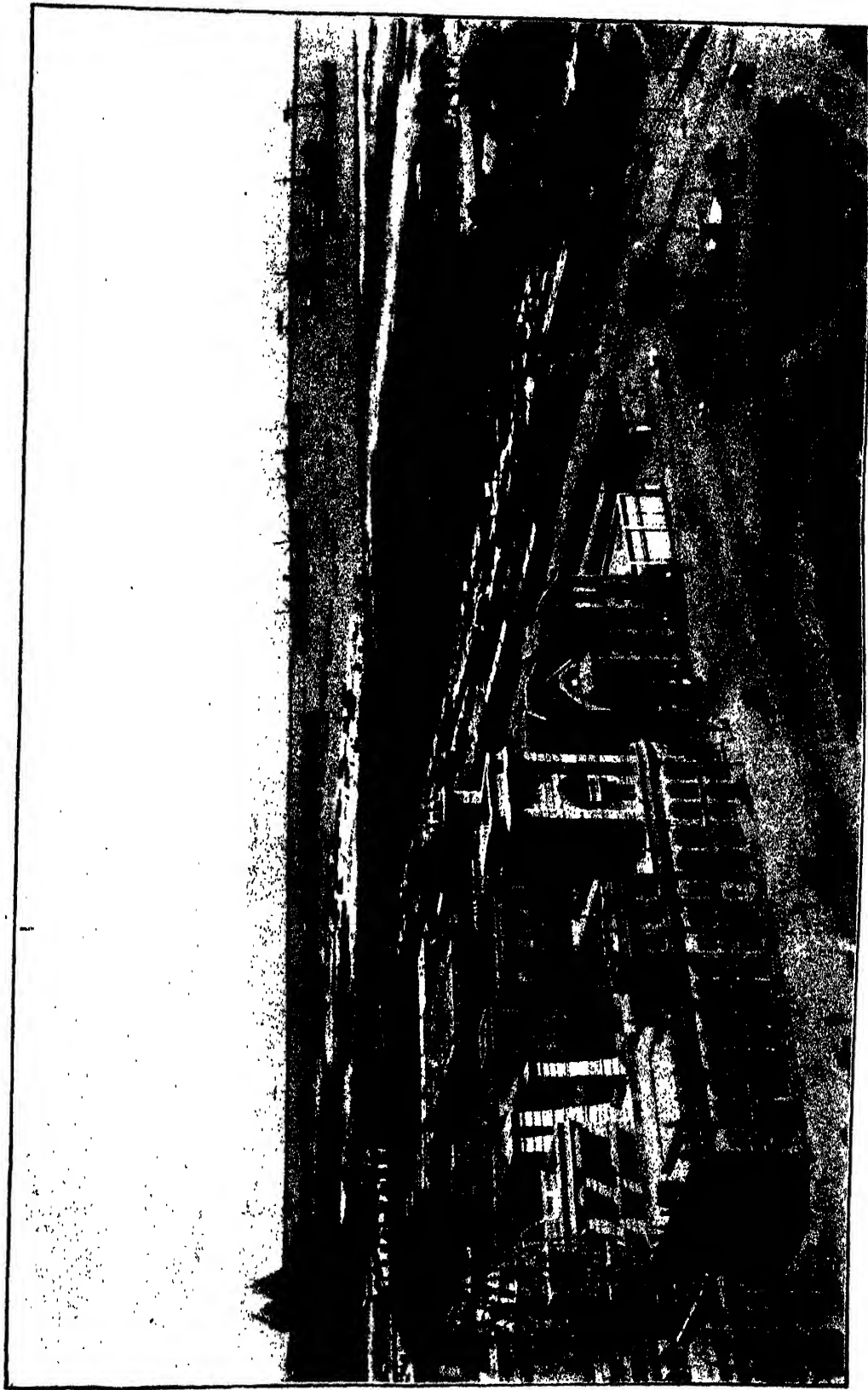
The Port of Madras.

THE following sketchy account of old Madras is taken for the most part from "Madras in the olden times" compiled from official records by J. Talboys Wheeler, Madras, Higginbotham, 1861. With so much for acknowledgment we proceed to quote freely where necessary, in offering to the readers of this publication an account of the early history of Madras and of its Port. "From time immemorial the rich productions of India had been eagerly desired by the civilized world. Her cotton, spices, jewels and perfumes had been carried up the Red Sea to the courts of Solomon, of Ahasuerus and of the Cæsars; and during the middle ages many of her choicest productions were conveyed by the Venetian merchants from the ports of Egypt to the courts of European Kings." Indeed, it seems probable that the ships of those times were, for all practical purposes, the same kind of Arab *dhow*, with deep midrib keel, and long raking bow and stern, which, even in the present day, are often to be seen by passengers between India and Europe in the performance of similar voyages, between Suez and Aden and between Aden and Bombay. On the Mediterranean side the Phœnicians in the early days, and later the Venetians, had more or less the monopoly of this lucrative trade. But with the discovery by Spain of Mexico and Peru, and by Portugal of the route to India round the Cape, there came a revolution in this long-established carrying trade, and from A.D. 1500 to 1600, the monopoly having fallen into Portuguese hands, the traders of Europe had to frequent the markets of Lisbon for the much coveted Indian products. The chief of these traders were the Dutch who in the 16th century had practically become the carriers of Europe. In 1580 they threw off the yoke of Spain, forming themselves into the United Provinces, and a Spanish King, Philip II—our friend of Armada fame—who had obtained the Portuguese Crown, was short-sighted enough to exclude the Dutch from his dominions in revenge for their secession. "This policy proved most suicidal. The Dutch, instead of being good customers, became formidable rivals; instead of purchasing Indian commodities in the Lisbon markets, they pushed on bravely to the Indian seas, and soon became ruinous competitors with Philip's Portuguese subjects for the Indian trade."

Thus the Dutch became great traders, working direct between Europe and the Orient, instead of, as heretofore, being local carriers only, from Lisbon onward. At first they refrained from interfering with the Portuguese trade in India proper and directed their attention to Sumatra, Java, and the Malay Archipelago where, as everybody knows, they are still going quite strong. In 1600 they started their factory at Bantam, and later their Java factory has become Batavia. But it was not until 1610 that they erected a fort at

Pulicat, some 23 miles north of the present Madras. In 1660 they took Negapatam from the Portuguese and in 1663 Cochin, and thus became the most important European traders on the Malabar and Coromandel coasts. In most of these old-world factories are still to be found their solid walls and stoutly doored houses, their churches, their tombs, and their descendants,—these last, for the most part, though of course there are exceptions, scarcely distinguishable now, after two and a half centuries, from the children of the soil.

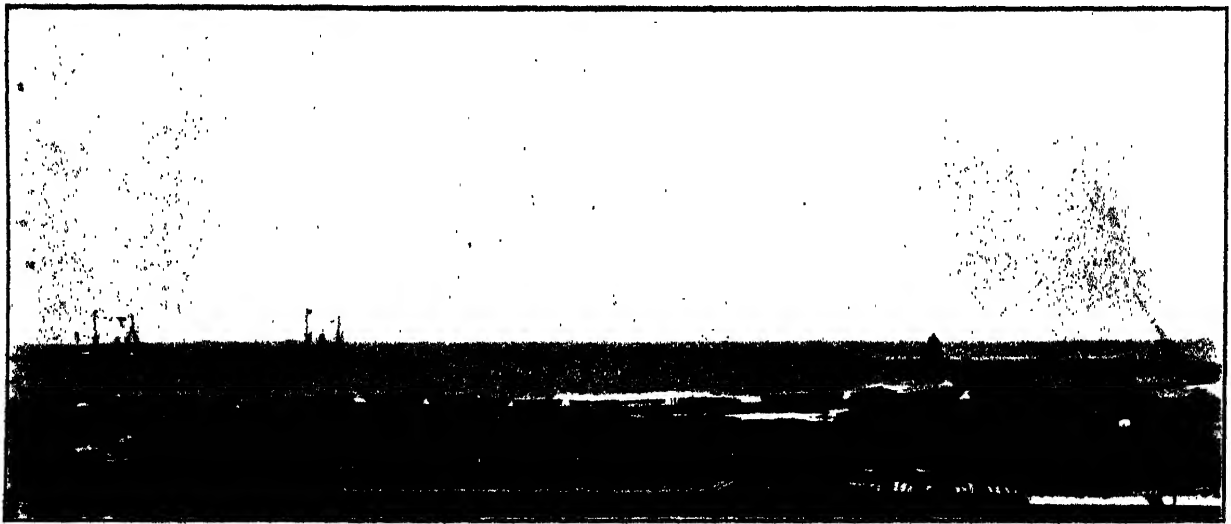
Thirty-five years after the dispersal of the Spanish Armada, the merchants of London conceived a strong desire to share the lucrative Indian trade with their neighbours—sometimes enemies, sometimes friends—the Portuguese and the Dutch. So the first Court of the "East India Association" was held on the 23rd September 1600, and in the following year the first fleet of four ships set sail for the Indian Archipelago, with a view to deal in spices. Just then the English were in friendly alliance with the Dutch, but did not care to risk further quarrel with Spain by trying to trade on the coast of India proper where the Portuguese had their factories. Large profits, stated at 100 to 200 per cent., were earned from these early voyages, our factories being Acheen in Sumatra and Batavia in Java. About 8 or 10 years later both Dutch and English directed their attention to the cotton cloths made in such quantities by the hand weavers of India, and in order to get in touch with this trade the Dutch, as already mentioned, built a fort at Pulicat, a few miles north of the present site of Madras. The English found it less easy to establish settlements on the Indian coast; for their enemies the Portuguese were already established at St. Thomé (now a suburb of Madras) and at other places on the Coromandel coast, and with Goa as their chief centre they were very strong on the Malabar side. However, in 1612, the English got hold of Surat after much fighting with the Portuguese, and kept hold of it under a firman of the Great Mogul, on condition of a duty of $3\frac{1}{2}$ per cent. to be paid on all goods. Unluckily, the friendship between the Dutch and the English did not last for ever. They had a strong dispute about some question of the spice trade, and the English being far the weaker just then in the East, had to leave Pulicat where, as in Java and Sumatra, they had been trading peacefully alongside the Dutch. They had, however, already effected a settlement in Masulipatam. Then came the Amboyna massacre where the Dutch killed off all the English on one of the Spice Islands, and thereafter, for generations, there was deadly enmity between the whilom friends. In 1625 the English obtained a piece of ground for a settlement at Armaghoun, about 40 miles north of Pulicat, working it in conjunction with their Masulipatam settlement.



MADRAS HARBOUR FROM THE SOUTH-WEST.

At this stage we come to the first that we know of Madras port proper, and here with advantage Mr. Talboys Wheeler may again be quoted. Mr. Francis Day, who had been despatched from Masulipatam to examine the country in the neighbourhood of the Portuguese settlement of St. Thomé, "met with unexpected success. He found that though the surf was heavy and dangerous, yet the locality was favourably situated for obtaining coast goods. Moreover, he received great encouragement both from the Native powers and the Portuguese. The Naick of the district promoted his views to the utmost, and from the Rajah of Chandragiri he procured for him a grant of land, with permission to build a fort, whilst the Portuguese at St. Thomé behaved to him in the most friendly manner and offered to give him every assistance in forming the new establishment. The territory granted extended five miles along shore and one inland. Thus was founded the first establishment in Madraspatnam in 1639, in the reign of His Majesty Charles I, and just

posul for the construction of an artificial harbour with a view to the mitigation of the surf trouble which was in precisely the same state then as when Mr. Francis Day found it so bad in 1639. For all up and down the east and west coasts of India the physical conditions are alike—except at a few exceptional points like Vizagapatam and on the west coast north of a certain degree of latitude—namely a low, sandy shore perpetually beaten by shoreward-rolling waves, varying in violence according to the time of year and the strength and direction of the wind, but never entirely absent. As was the case 300 or for that matter 3,000 years ago, so to-day, it is only on very exceptional days in the year—probably not more than as many as ten days in any year—that a boat built in the ordinary fashion of European boats can safely come ashore from a vessel lying off the coast. And if the bringing of such a boat ashore is difficult or impossible without her being staved in, to launch her is even more difficult. It may be said that the surf is



MADRAS HARBOUR, SOUTH AND EAST BREAKWATER.

before the breaking out of the great civil war." The grant obtained from the Rajah of Chandragiri was dated 1st March 1639. Soon a fort was built, though in 1652 its garrison consisted of only 26 soldiers. In 1653 the Agency was raised to the status of a Presidency, with supremacy over the factories of the Coromandel coast and of Bengal. Sir Edward Winter, who was appointed in 1661, was the first President of whom we have any reliable knowledge.

As this is not a history of Madras but of the rise and growth of its port and of its trade, we may refrain from enumerating the many vicissitudes passed through in the centuries by the growing Presidency, of which some of the most interesting have to do with its passing out of the hands of the French and with our many years of struggle for the mastery of India with that nation. Sir Edward Winter was superseded in his command in 1668 and just 200 years later, 31st January 1868, the Madras Chamber of Commerce made the first definite pro-

practically never so slack as to allow a boat built in Europe fashion to be launched from the shore for the service of a vessel lying outside at anchor. The effect of this on communication between ship and shore, in the absence of some kind of a harbour to calm the surf, will be obvious. Trading vessels have always been obliged to employ the country style of boat for the embarkation and debarkation of cargo.

As already remarked, there are exceptional places. These usually are places where rivers run out into the sea, practically always through sand bars over which heavy surf rolls for most days in the year. But the rowers, or rather paddlers, of the native boats are clever at negotiating such bars without disaster, and even if there should be an upset, the boats themselves float unhurt even though cargo be lost, and as for the crews they are more or less amphibious. In the old days of sailing ships and long voyages, vessels reached the coast of India with their bottoms covered inches deep with marine growths

of all sorts which clogged their speed, and it was necessary, if they were to make a good return voyage and be able to outsail a potential enemy, that they should be careened and cleaned. This was quite impossible on the surf-beaten coast except at the few places where owing to the *débouchment* of rivers from the interior, there existed calm backwaters into which, when the tide was high and the surf over the bar not too violent, a vessel drawing 10 or 12 feet of water might perchance be warped. Clearly then such creeks as these, though absolutely useless to modern ships and of value only as affording shelter to cargo lighters, were much sought after by old-time sailing ships, and it is because of such mud creeks that places like Negapatam, Masulipatam and Vizagapatam owe their existence as ports. Vizagapatam with its high rocky headland, the Dolphin's Nose, offers shelter to vessels in certain winds. Coconada lies in a curve in the coast, of large radius but still curved enough to afford at times comparatively smooth water, and cargo boats can communicate with the canals and backwaters of the Godavari.

It is difficult nowadays to realise what attraction Madras had to offer to the traders, from the nautical point of view—and this point of view could by no means in the old days be set aside. To be sure, there is the Adyar river just south of the Portuguese settlement of St. Thomé with its lagoon and its bar, the latter quite closed for perhaps eleven months of the year and scarcely negotiable in the remaining month, even by the local surf-boats, still less by framed boats. Then, again, there is the Kum ("Coom") river, with a bar quite as impracticable as that of the Adyar. The fort of Madras is built on this little river, and it may be conjectured that, useless as it seems to be nowadays, it was at least better than nothing in the old days and that its existence had some sort of an influence on the choice of a site for a settlement. It may be taken as practically certain that the heavily framed ten-ton lighters now in use at Madras were non-existent in the old days and only came into use when the old screw pile pier was built some 40 years ago. The only class of boats capable of service in those days were the *masulah*, or surf-boats, consisting of planks roughly laced or sewed together with string, a long, continuous half sausage of straw being squeezed by the string lacing all along the jointings of the planks on the inner side. These boats, of which every port on the coast has some scores, have bottoms of flat planks and sides of the same sort of planks; not nicely sawn, parallel-edged planks, but just as sawn or hewn out of the tree, the broader the better as offering fewer joints. They are pierced all along the edges with quarter-inch holes some 4 to 6 inches apart, and are then fitted edgewise (and endways with an overlap) one to the other without any kind or sort of keel or rib or framing, except for a stick in the bow and another in the stern. They carry 2 to 3 tons, are manned by two to four yelling naked rowers, who pull, or rather flop in the water long broom-sticks each with a small bit of heart-shaped plank, smaller than a page of foolscap, at the end of it. These paddlers are commanded by a steersman armed with a similar paddle. They sit on sticks

rudely lashed across the gunwales of the craft to keep it from collapsing flat like a paper boat, and with consummate judgment and much wild yelling they negotiate—for the most part safely enough—the mountain of curling surf that may be trusted to smash into matchwood the finest boat of European build ever launched, even if manned by a powerful crew. The trade of Madras has from the first been, and still to a large extent is, in the hands of the owners and crews of the surf boats that have just been described. The object of those interested in the development of the artificial harbour has been to replace such craft as these by modern, well-found lighters and perhaps, who knows, later, to enable vessels to lie alongside of modern wharves. But to those fired by such ambitions no more unpromising locality ever presented itself than Madras in the eighteen sixties.

In the old days when a voyage per annum was considered good enough by the owners of the sailing ships trading between Europe and India, a delay at such a place as Madras of even a month or two months was a matter of comparative unimportance. Doubtless, in anticipation of the arrival of a vessel returning to England, the factors on shore had all her cargo ready for shipping to her in these surf boats. But she may also have had cargo to put ashore, and it will readily be imagined how slow and risky a process it was to get it off in the boats in question. For, as has been explained, the vessel's own boats were of no use for any such purpose. Then, later, when modern steamers came into use and were expected by their owners, if they were to pay dividends at all, to make at least three or four, and if possible six voyages in the year, such a service between ship and shore as that afforded by the surf boats began to be viewed as quite unpermissible and impracticable. Each day's delay to such a steamer meant many pounds sterling of loss per 1,000 tons capacity, and needless to say, this had to be paid for in freights. All the time, there were the long-established trading firms of Madras who could not very well shift elsewhere, leaving capital invested in useless warehouses and losing long-established business connections. These firms—as indeed they still do—must have viewed with alarm the gradual extension of the trading influence of the merchants of the more favoured ports of Bombay and Calcutta especially since the days of railways—into territories long looked on as Madras reserves for trading purposes.

The first attempt made to improve matters was the construction, at a cost of Rs. 11 lakhs, of some 1,000 feet of a screw pile pier, 40 feet wide and 17 feet above low and 12 above high water level. This pier was carried out beyond the surf-suck, in the hope that except in very heavy weather it might enable modern, framed cargo boats to work between ship and pier. It has done 40 years, and will do another 10 years, of good service; but, needless to say, it was soon found to be totally inadequate for the requirements of modern steamers, and the surf boat, with all its risks and disabilities, continued to do most of the work between ship and shore. Thus we come to the year 1868, when a vessel arriving at Madras found herself anchored—there being no standing moorings—off a shelterless, surf-bound coast, equipped with an iron pier which, because of its projecting out

beyond the suck of the surf, afforded facilities for direct communication with the shore such as had never before been enjoyed until the year of the pier's completion. When, however, a vessel attempted to put cargo ashore or to get off exports from the shore, so inadequate were the pier facilities for craning cargo in or out of boats that, practically, most of her work had to be carried on through the heavy surf precisely as 100 years before, by the aid of the *masulah* boats above described. Even the few framed, ten-ton cargo boats that the advent of the screw pier enabled to come into existence had perforce to be drawn up ashore by their owners and put out of action for months at a time lest they should break from their moorings and be cast ashore, to inevitable wreck, in the event of bad weather. For once the character of the surf ceased to be of the mildest; it was perfectly hopeless to try to beach one of these framed boats. Thus, in spite of the pier, the influence of the *masulah* boat remained supreme, and the effect of this on freights and on insurance charges may readily be imagined. All this time Bombay was spending millions freely and preparing schemes for cheapening transit between ship and shore, and at the same time railways from the Bombay side were extending their tentacles into Madras trading territory.

The anxiety of Madras traders, in regard to their very existence, first found public expression in a letter by the Chamber of Commerce, dated 31st July 1868, addressed to the Government of Madras, which was minuted on by the then Governor, Lord Napier, on the 23rd August of the same year; in this minute he alludes to the project of a harbour as having been often suggested, abandoned, and revived. The Government of the day accorded its cordial support to the Chamber's recommendation that an artificial harbour should be built, and in its order, dated the 28th August 1868, appointed a strong Committee which in due course, on the 16th January 1869, presented its report. At this stage we will quote freely from the "Official papers concerning the construction of the Madras harbour," arranged by Mr. A. T. Mackenzie, M.INST.C.E., and printed in 1902, by the Superintendent, Government Press, Madras, price Rs. 4, or 6 shillings. The Committee, after considering certain alternatives only to dismiss them, "discussed the condition of the port and its disabilities, which were (1) the open roadstead, (2) delay in loading and unloading cargo owing to the use of *masulah* boats, (3) cost of landing and shipping cargo and extortion of boatmen, (4) damage to goods. All these disabilities it would be the object of a breakwater to remove, while also furnishing a harbour of refuge." Thus it will be seen that from the first the "harbour of refuge" idea found but a secondary place in the minds of all concerned, and that the primary object in view, from the first, has been to better the conditions governing transfer of cargo between ship and shore.

The relative importance of these two things, *i.e.*, of providing a harbour of refuge for ships and of providing smooth water for lighters to work cargo between ship and shore, is not always grasped by the public, and sometimes has seemed to have been lost sight of in the discussions that have taken place during the 40 years

since the harbour scheme was first mooted. In the average mind the word "Harbour" connotes "*Statio bene fida carinis*," a place in which ships may lie safely at moorings in bad weather. But no harbour of this class is possible at any reasonable expense on such a coast as that to be found at Madras. For it is not the waves but the wind that is likely to tear ships from their moorings, and it would not be practicable to erect all round an artificial harbour on a low-lying coast like that at Madras, any sort of adequate wall to keep winds from striking a ship broadside. Indeed, a very ordinary modern vessel may expose a broadside of 10,000 square feet to a wind offering a pressure of 50 lbs. per sq. ft. or a total pressure of 500,000 lbs., or say, 250 tons, which would require stouter bow and stern moorings than any likely to be available in any port in the world, or likely to be carried in, or that could well be handled by the crew of, any modern trading vessel. And even if at the first sign of bad weather all vessels in the limited area of a harbour were let swing head to wind, the chain cable would have to be an impracticably large one to stand the lift and strain due to the necessarily short length of the mooring chain and its consequent want of spring. Therefore, except under very exceptional circumstances, of which usually the master of a vessel will be the best judge and must be prepared to justify himself to his owners, it will be wiser for vessels to give up the Harbour of Refuge idea altogether, and whenever the "great danger" signal is hoisted, to steam out to sea where they will be infinitely safer than if caught in the little rat trap of a harbour, where the area in which ships can swing is only about $\frac{3}{4}$ mile by $\frac{1}{2}$ mile, and that for, perhaps, 8 or 10 vessels. However, such conditions of weather as to justify the hoisting of the "great danger" signal need not, ordinarily, be looked for more than once in four or five years, for perhaps 24 hours at a time, and during the remaining time a harbour, even if only an artificial one on a low sandy coast, will be found of infinite benefit, if properly equipped, in providing shelter for modern lighters, tugs, etc., and in securing them smooth water to work in, whether alongside vessels or at piers. However, in the case of Madras harbour, as will be seen, it was years before the true principles were grasped, and even up to near the present day perhaps half of the cargo dealt with at the Port is obliged to be handled by the archaic *masulah* or surf boat, for lack of an adequate supply of suitable piers and of an inner harbour for lighters. All this, however, is now in process of being remedied.

Nine years were to elapse between the date, 31st July 1868, of the Madras Chamber of Commerce representation in favour of a harbour and the actual commencement of work in 1877, and the history of these nine years may thus be summarised briefly. The Committee, already referred to as having been appointed by Government on 28th August 1868 to report on the matter, reported in favour of an isolated breakwater of the Plymouth sort, parallel to the shore, in 7 fathoms of water, 1,200 yards off the shore, 2,000 feet long, with splayed ends, to cost Rs. 106 lakhs. The Madras Government accepted the view of the Committee (there had been one dissentient, Col. Carpendale, R.E.), in favour of a detached breakwater,

and sent the scheme to the Government of India with a request that the Secretary of State might be moved to send a thoroughly qualified marine and harbour engineer to report on the matter. Accordingly Mr. G. Robertson, who just then was reporting on other Indian harbours, was asked to report, which he did in 1871, to the effect that, subject to confirmation when more information about sand-travel should have been collected, he was in favour of a detached breakwater of the Plymouth sort—that is, of loose rubble—at a cost of Rs. 131 lakhs.

At this stage, Mr. Robertson's report came to the notice of the Engineer of the Karachi breakwater, Mr. W. Parks, who thereupon undertook to show that the system of construction there adopted, *viz.*, a wall of artificial blocks on top of a submerged layer of rubble, would be far less expensive than the proposed Plymouth system of a rubble mound reaching above water level. But the most important part of Mr. Parks' report was his recommendation in favour of a closed harbour in lieu of a detached breakwater. Indeed, the plan of the closed harbour which accompanied Mr. Parks' later report, dated 4th November 1873, is practically the plan that was adopted, later, and is now in use. The result was that Mr. Parks, having been deputed to visit Madras, submitted the report just referred to, with an estimate amounting to £565,000. Mr. Parks' proposals were approved in due course by the Government of Madras and the Government of India, and were by the latter sent forward to the Secretary of State in 1874, with a recommendation that they should be subjected to the scrutiny of higher professional authority than was obtainable in India. Consequently the matter was referred for report to Mr. J. F. Bateman, who supported Mr. Parks' proposals, and in due course, in a despatch dated the 11th March 1875, the construction of the harbour on the lines recommended by Mr. Parks was sanctioned by the Secretary of State, and work began in 1877.

The next four years were occupied in the construction of the harbour by Mr. Thorowgood, only interrupted by the issue, on 18th February 1879, of a strongly condemnatory report by Sir Andrew Clarke, R.E., Member of the Viceroy's Council for Public Works. Sir Andrew Clarke "condemned the scheme on political, financial, nautical, commercial and engineering grounds and recommended a design by which the harbour would be detached from the shore, its accommodation increased, its defensive power improved, and egress and ingress facilitated. In this design the two arms were broken at $3\frac{1}{2}$ fathoms, leaving an entrance both north and south, the curved or breakwater portion being larger than hitherto designed, the outermost point being armed with a fort, and the interior divided by wharves. This report was forwarded home and referred by the Secretary of State to Mr. Parks in September 1879. But in the meantime the progress of the south and north arms had provided more data, and Mr. Parks was able to satisfy the Secretary of State that sufficient warrant had not been furnished for stopping the work." The work therefore went ahead on Mr. Parks' design, only altered in form at the seaward side of the harbour and at the entrance. But during this progress, Col. Sankey, R.E.,

and Captain Taylor, R.N.R., respectively Chief Engineer and Master Attendant of Madras, paid a visit to Colombo, and on their return remarked on the much more massive section of the arms there and the heavier rubble protection. But Mr. Parks on the 4th of August 1881 defended his design by the example of Karachi and declined to consider Madras and Colombo as comparable. We now knew that in this judgment he was mistaken and that Madras is liable to be exposed to sea action of a far more destructive character than any likely to be experienced at Colombo. On November 12th, 1881, a severe cyclone visited Madras, and the seaward parts of the works, which had then progressed nearly to the entrance pier heads, were almost destroyed.

Following upon this disaster there came two valuable reports, the first by Mr. (now Sir) Guildford Molesworth, and the second by Mr. Parks, the latter dated the 9th March 1882. Both reports are of a technical engineering character, somewhat out of place for quotation in such a paper as this. But it may be noticed that the chief points brought out were: (a) that wave action caused disturbance at a considerably greater depths than any previously recorded in Europe; (b) that the excessively destructive wave action experienced was, on this occasion, unaccompanied by wind of any great force and must be ascribed to some very severe local action somewhere out at sea, of which the winds did not, while the waves did, reach Madras; (c) that the breakwater designed by Mr. Parks was too low and too weak, and must be raised and strengthened, and (d) that the alterations consequent on the disaster might cost up to Rs. 18 lakhs. But the matter of chief interest, from the point of view of more recent experience, brought to notice by Mr. Parks, was the evil effect of the position of the harbour entrance. The eastern entrance admits swell which renders it necessary that vessels should be moored, as far as possible, stem and stern, so as to face the swell and not to roll while handling cargo. And yet, in high winds, which may not by any means necessarily be in the same direction as the swell, vessels may have to cast off their stern moorings so as to lie head to wind and, if necessary, to swing quite round as the wind veers. But this may lead to heavy rolling, because of the wave swell coming side-on, thereby making the handling of cargo between ship and boat dangerous or difficult. These considerations, as well as the surf which the harbour arm had not by any means put an end to, and the risk of wreck to any sort of cargo boat of a better class than the old-fashioned surf-boat, made it necessary, in Mr. Parks' opinion, to consider the question of the alteration of the eastern entrance, to some situation where waves would find it less easy to enter and disturb the surface of the harbour.

The question of the design and reconstruction of the harbour was then referred by the Secretary of State, in 1882, to a Committee of experts, consisting of Sir John Hawkshaw, F.R.S., Sir John Coode, and Professor Stokes (later Sir George Stokes, Bart.). They in due course submitted a full and valuable report, with plans for the reconstruction of the damaged harbour on a stronger scale. Briefly described, their recommendations were to the effect that at the damaged outer ends of the two arms, and on the eastern parts of the arms,

a new wall of heavy concrete blocks should be built on the inner side of, and where practicable amalgamated with, the injured structure, that the level above water level should be raised several feet, and that the outer mass of rubble and random blocks should be very considerably added to. The Committee did not consider the question of substituting a *northern* for the eastern entrance; but they negatived a *southern* entrance, and as things have turned out, quite rightly, and suggested the narrowing of the eastern entrance from 550 to 450 feet. It was subsequently narrowed to 500 feet. Alternative estimates of the cost of these different ways of carrying out their recommendations came to £480,000, £430,000 and £466,000. A local Committee formed at Madras to consider this report submitted the result of its sittings on 30th April 1883, expressing strongly the opinion that a new entrance would be necessary if the swell inside the harbour during heavy weather was to be mitigated. This Committee estimated the cost of restoring the harbour and opening a new and closing the old entrance at Rs. 51½ lakhs. But the weak point in their recommendations was that they proposed to meet the cost of the alteration of the entrance by cutting down the home Committee's proposals for raising and strengthening the arms. Accompanied by a note by Sir Guildford Molesworth, these views were again laid before the home Committee who insisted on the retention of their design for the strengthening of the arms while treating the proposed alteration of the entrance—in the necessity for which they did not quite concur—as an additional expenditure, thereby adding £125,000 to their previous estimates. They repeated the suggestion that instead of at once making a new entrance, the old one might be narrowed from 500 to 450 feet. They added the very pregnant note that it must not be forgotten—during the next 20 years it *was*, as a fact, forgotten—“that whether the harbour were completed with the present or with a new entrance, there are now no sufficient facilities within it for loading or unloading vessels; and if further expenditure is to be incurred, it is a question whether it would not be better to incur it in providing such facilities at or near the base or shore end of the harbour, rather than in making a new entrance. After giving the fullest consideration to this question, we cannot recommend the construction of the proposed new entrance.”

The old question of altering the aspect of the harbour entrance from east to north-east was fated to be under discussion for a period of 20 years before a decision was finally arrived at. A brief sketch will be offered of this long discussion, but first a few words of explanation seem necessary. The chief thing desired by those interested was that ships should have smooth water to load and unload in. When ships *pitch*, head to sea, there is nothing like the same difficulty in craning cargo between hatch and lighter as when they *roll*, side to sea. Now, ordinarily, by casual thinkers, it is believed that when a vessel is lying head to *wind* she will at the same time be lying head to *sea*, and will consequently only pitch and not roll, and thus will not be inconvenienced in landing her cargo. But such is not the case—is indeed very far from being the case—except very exceptionally,

in a close harbour like that at Madras. For not only do *all* waves that are rolling shorewards approach more or less parallel to—say within 15° either way from parallelism with—the shore, quite irrespective of the wind direction, but still more, in the harbour itself, no waves at all can get in except at the eastern entrance, and these more or less retain their original long-shore lie, so that all ships lying head to north or south are *bound* to roll, to the great inconvenience of cargo-handling. This is even worsened at some of the moorings by the deflection of the waves off one or the other of the walls of the harbour, and it follows that when there is any swell outside at all, there will usually be inconvenient rolling going on inside. Thence the urgent necessity, so strongly insisted on throughout the years of discussion, and curiously enough so little apprehended by the high engineering and nautical authorities in England to whom it fell to pronounce opinions that carried weight with sanctioning authorities, of *keeping out the swell* at any cost in reason. It will be realised, in the light of the above explanation, that during high winds, vessels must, if possible, be able to slack off their stern moorings and so swing that they may lie head to wind instead of bearing the burst of the wind on their sides. The importance of this will be realised when it is pointed out that not only is the *head* area exposed to the force of the wind only about one-sixth part of the *side* area, but also that the pointed bow is far better shaped to throw off the pressure than is the flat side of the ship. Few vessels are so well found astern, with holding tackle, as to be able to offer their flat side to a really strong wind—especially to strong *puffs* of wind—and not break their stern lines. When this happens they must necessarily swing head to wind, perhaps for days at a time, and in Madras harbour all berths are so arranged that vessels may do so, without endangering one another. As explained, when so swung, whether by design or by accident, it is an equal chance that though *head to wind* they are *side to swell*, and so must necessarily roll badly, to the great danger and difficulty of cargo working. With so much for explanation of the wave or wind and roll or pitch question, we return to the history of the alteration of the harbour entrance.

In dealing a second time with the opinion of the Hawkshaw, Coode, and Stokes Committee, the Government of Madras, now advised by Col. Shaw Stuart, R.E., insisted most strongly on the necessity for a north or north-east entrance, pointing out that in this view they had practically the unanimous support of marine experts acquainted with the working of the harbour. The Secretary of State, however, supported by Mr. Parks, felt that he had no choice but to accept the decision of such eminent authorities as Sir J. Hawkshaw and Sir J. Coode. In the meantime the restoration of the harbour from the condition of wreck to which it had been reduced by the cyclone of 1881 had been more or less in abeyance and was only resumed vigorously in 1885.

A fresh opportunity for raising the question of the alteration of the entrance was offered by the coming into force of the Madras Harbour Trust Act of 1886—superseded later by the Madras Port Trust Act II

of 1905—whereby the direct control, property, duties and liabilities of the Port passed from Government to a Board of Trustees. At the end of the year 1886 the new Board again raised the question of a north-east entrance, though their Engineer, Mr. F. N. Thorowgood, was then of opinion that things having gone so far it was rather late in the day to make so radical a change. The Port Trust's proposal was strongly supported in turn by the Governments of Madras and of India, and the result was the appointment by the Secretary of State of a new Committee, stronger this time in nautical experience, consisting of Admirals Salmon and Nares and Sir John Coode, who reported in 1887 in favour of the adoption of a north-eastern entrance. That this Committee had a clear appreciation of the essential points at issue is made evident by the quotation of the following paragraph from their report: "It is agreed on all hands that owing to the frequently disturbed state of the water, the facilities for landing and embarking passengers, cargo, etc., offered by the harbour, are very much restricted, nor would it be feasible, for the same reason, to use, without serious interruption, wharves and jetties along the shore line, or to keep in safety within it such improved lighters, tugs, and other harbour craft as would greatly increase its value as a trading port."

Meanwhile, as years went on, owing to conditions which, as this is not an engineering publication, need not now be described, sand had been banking itself upon the south side of the *outside* of the new harbour and gradually creeping forward so as to threaten completely to close up the eastern entrance. Indeed, whereas in 1888 there were 48 feet of water in the entrance there were in 1904 only 32 feet, and were it not for the dredging that now takes place for a month or six weeks every year, the silting up of the eastern entrance would be taking place at the steady rate of one foot yearly. This fact coming to the notice of the Salmon, Nares and Coode Committee, they wrote: "The present or east entrance we believe to be the easiest and safest for ingress or egress, but not only does it admit the sea in the manner described, but we are of opinion that the time is not far distant when the depth at this entrance will be so far reduced as to become too shallow for the larger class of vessels frequenting the port." This report, when sent to India, was accompanied by a critical note by Mr. Parks who thought that the sand difficulty had been exaggerated and would not be of practical importance until 1938. We now know, however, that were it not for the dredging done since 1904, the depth at the entrance would, by now, 1908, have been reduced to 28 feet. In other words, in any, even a moderate, swell, the port would have been practically closed to 4,000 ton steamers. The Harbour Board and the Government of Madras, however, concurred with Mr. Parks' opinion as regards sand-travel, but considered that the north-east entrance, as recommended by the Admirals' Committee, should be adopted and commenced at once. Meanwhile, on the 31st July 1888, Mr. Thorowgood resigned his post and was provisionally succeeded as Superintendent of the Harbour Works by Mr. A. I. Pogson who, two months later, made an important proposal for making a north-eastern entrance and at

the same time providing shelter for lighters and smaller craft, in the shallow part of the harbour area not available for ships. With the support of the Harbour Board and the Governments of Madras and of India, Mr. Pogson's proposals in due course reached the Secretary of State, who, however, did not accept them, but directed that the reconstruction should proceed on the old design and that the form of the new entrance should be left for future consideration. On Mr. Parks' death in 1889 Sir Alexander Rendel appeared on the scene as the London Consulting Engineer to the Harbour Board, and for the first time raised the question of the advisability of constructing quays at which ships might work their cargoes in perfect quiet and security. But this proposal was rejected on reference to the Harbour Board who adhered to their former decision to complete the reconstruction on the old lines, with an eastern entrance narrowed by 50 feet, and to come to a decision about a change of entrance later, in the light of experience. By the end of the year 1895 the harbour with an eastern entrance was completed. The total cost to date was Rs. 1,26,21,212 of which Rs. 61,41,985 were spent before 1888, and for the difference between these two sums, Rs. 64,79,227, Government made the Harbour Board responsible, for repayment ultimately and for interest at $4\frac{1}{2}$ per cent., since reduced to 4 per cent.

In the years which elapsed between 1895 and 1904 Sir A. Rendel, K.C.I.E., Mr. B. deWinton and Mr. F. J. Wilson—all Mems. Inst. C. E., pleaded for ship docks, boat docks, or quay walls, under various designs. But the feeling of the practical mercantile men of whom, for the most part, the Harbour Board is ordinarily composed, was that, however desirable such luxuries might be in the future, the present trade of Madras was not of sufficient magnitude to afford them, and that the matter of immediate urgency was that the shore side of the harbour should be suitably equipped with piers, cranes, sheds, railway sidings, etc., on an adequate scale for the traffic offering itself. Eventually in 1903, proposals were submitted for the construction of a north-eastern entrance and the closure of the eastern one at a cost of Rs. 45 lakhs, and this, in due course, was sanctioned by the Secretary of State and put in hand, under Mr. F. J. Wilson as Chief Engineer under the Harbour Trust Board whose Chairman, until now, had always been the *pro tem* "Collector"—*Prefect, Chairman of County Council*—of the local Madras administrative area.

Early in 1904, recognising the disadvantages of constant changes in the personnel of the Chairmanship, Government appointed as whole-time Chairman, the compiler of this article, lately their Secretary in the Railway Department, who had just retired from the service. Two years later, on Mr. F. J. Wilson's appointment to be Secretary in the Madras P. W. Department, the Engineership and the Chairmanship were combined in the writer's charge. The Board now entered actively on a policy of spending all its Revenue balances on providing the Port with suitable appliances, so long lacking, for the proper handling, storing and delivery of goods between ship and consignee, and in pursuance of this policy have laid down for themselves a programme of expenditure on such equipment which,

when completed, will have cost Rs. 25 lakhs. Amongst the works arranged for in pursuance of this policy, as well as in connection with capital loan expenditure on the alteration of the harbour entrance, are the following, which have, in their effects, revolutionized the methods so long in use at the Port. Most of them, from (a) to (k), are already, 1908, completed and in use; the rest have been arranged for or are in hand.

- (a) Radical re-arrangement of the lines and sidings in the Harbour Trust's yard.
- (b) Improvements for coal handling.
- (c) Improved cranes.
- (d) An export pier equipped with cranes.
- (e) A pier for dutiable imports, equipped with 16 hydraulic cranes.
- (f) A shed of an area of $1\frac{1}{2}$ acres for dutiable imports.
- (g) A 7-acre basin for lighters and small craft drawing under 12 feet of water.
- (h) A slipway, for hauling up vessels up to 500 tons burden.
- (i) Jetties, cranes, sidings and other facilities for the timber trade.
- (j) Space, sidings, etc., for minerals and rough cargo near the boat basin and south arm.
- (k) Improved arrangements, pier, waiting rooms, etc., for use of passengers.
- (l) Pier and arrangements for improving the landings of iron.
- (m) Extensive arrangements, including hydraulic cranes, etc., for the landing and despatch or stacking of coal.
- (n) A pier for non-dutiable imports.
- (o) Sheds for non-dutiables, whether imports or exports.

Undoubtedly the provision of these appliances, so far as they have gone, has been accompanied by an increase in the volume of trade done at the Port, and there is every reason to hope that by tending to lower lighterage charges for landing and shipping, as well as by expediting the despatch of steamers and thereby eventually lowering freights, the new works will be of immense benefit to local trade.

Meanwhile the alteration of the harbour entrance is in progress, nearly half of the estimated cost of it and of its plant and connected works having been spent already by the middle of 1908, and there is every reason for believing that by the middle of the year 1911 there will have been secured smooth water inside the harbour, so that no matter how ships may be obliged to swing to the high winds in certain days of the year, there may be no rolling such as now sometimes so seriously interferes with the handling of cargo. Of all the works above referred to, perhaps, the boat basin is the most important as judged by its effects. For there has now grown up in the Port, because of the protection afforded by this basin, a large tonnage—in the next few months there ought to be fully 1,500 tons—of large modern lighters into which the greater part of the vessels frequenting the Port will be able to put out the balance of their cargo after a day or two of working. For it must be borne in mind that it is only for very few ships that Madras is a terminal Port. Most vessels

have only a few hundred tons to take in or put out, *en route* for other and larger ports where they can be sure of return cargoes. But it would have been of little use to have provided the boat basin, and thence, indirectly, the lighter fleet, if measures had not at the same time been taken to unload the lighters quickly. The new dutiable import pier with its 16 hydraulic cranes does all this, and it is now quite exceptional—except when a vessel sees fit to work cargo overside at night—to find lighters containing cargo left afloat during the night, as used sometimes to happen, even in bad weather. Even when cargo is left afloat in the new lighters, it can suffer but little or no damage, being well battened down, whereas only a few months ago scores of country boats might be seen moored full of valuable cargo, but deserted of all crew, and exposed all night to the attacks of thieves, or likely to sink for want of baling, or to come ashore for want of an anchor watch. And just as the dutiable class of cargo has already been provided for, as described, by means of the new pier, cranes, and the fine new shed, so non-dutiable cargo will be provided for in the next few months, as well as the coal, iron and other rougher classes of imports.

That the trade of Madras is not a stagnating trade, but will respond to proper provision of facilities, may be judged of from the fact that, in this the 8th year of the current century, the value of the whole trade handled at the Port, whether exports or imports, coasting or foreign, has improved by just 50 per cent. over and above the average figure at which it stood more or less stagnant in the last 13 years of the 19th century. The average in question was just Rs. 12 crores or £ 8,000,000, and it did not appear to show any tendency towards upward growth, judging from a diagram made from the figures published in the Government Customs Department. But in the year 1907-8 the value of the trade is given at Rs. 18 crores, or £12,000,000. The value of the total of exports remains, persistently, throughout the years, at from one-third to one-fourth lower than that of the total of imports; but this applies only to what actually passes through the Port of Madras, and doubtless if facts were available and if internal and external trade by railways and *via* other ports were taken into consideration, there would not be apparent so great a discrepancy.

The final position of the Madras Port Trust Board is as follows:—They are in possession of property valued—after all depreciation—at the end of the year 1907-8 at Rs. 1,97,40,108, say nearly two crores of rupees or £1,300,000. They are in debt for part of this, to the extent of Rs. 53,40,776 or say £350,000. This debt is in process of being paid off out of ordinary income, part of it in 40 years and part of it in 60 years. Equated payments are made of principal and interest at four per cent. The burden of the debt is light and in its comparatively small way the Port is pretty well off, with a gross income of 9 to 11 lakhs of rupees—say £70,000 per annum—from which working expenses take about 60 per cent. The balance to the good is pooled for the provision of works which ordinarily would be provided for by borrowings; indeed, most of the Rs. 25,00,000 worth of internal improvement works just now in hand are to be provided for out of revenue

surpluses. Thus it will be seen that the Port's financial position is a perfectly sound one. The entire cost of the facilities of all kinds afforded to the public at the Port of Madras averages just Rs. 1-8-0 or 2 shillings per ton of cargo using it. But if coal be omitted from the calculation—for it pays very small dues and as yet receives few facilities—the cost, not of shipping but of actual cargo handled in the port, works out at Rs. 2-1-7 or to, say, 3 shillings per ton.

There are in the harbour two revolving Titan cranes that at a radius of 60 feet can each lift 33 tons and one of them can lift 25 tons at a radius of 80 feet. There is a steam gantry crane to lift 15 tons at a radius of 33 feet. There is a steam 12-ton crane. There are 2 two-ton and 14 one-ton hydraulic cranes, a couple of 5-ton and some smaller steam cranes and a number of hand cranes. All these are capable of lifting weights out of lighters, and some of the largest of them are in daily and hourly use for this purpose up to 33 tons. On shore, where trollies loaded on the pier are unloaded preparatory to despatch on railway trucks, there are cranes corresponding to the above by which road lorries and railway trucks can be loaded in due course.

Madras is the principal Port of an area of country containing some 30 odd millions of inhabitants. The town itself has some half-million inhabitants. It is served by two great systems of railway, the Madras Southern Mahratta Railway and the South Indian Railway, with lengths of 3,000 and 1,500 miles respectively. It would be a very much more important Port than it is but for the fact that, here in its southern end, the Indian peninsula has so narrowed, and the sea is so near, that there are actually, in the Presidency, 148 ports, of which 45 are open to general trade, coasting and foreign, and 103 to coasting trade only. It follows that, because of these facilities, Madras Port can never hope to obtain so large a share of the trade of the millions at the back of her as Calcutta has of her 100 millions, Bombay of hers or Karachi of hers.

Omitting coal, of which 278,000 tons were imported, chiefly from Bengal, the imports at Madras in the year

1907-8 amounted in weight to 326,000 tons and the exports to 132,000 tons. Kerosine oil headed the imports at 52,000 tons, mostly in bulk, pumped ashore; Railway materials were 45,000 tons; then came metals, chiefly bar iron, 37,000; food grains, 28,000; timber, 27,000; piece-goods and twist, 20,000. The remaining 117 tons of articles of imports were individually of comparatively small weight. Amongst exports, seeds and ground-nuts were 24,000 tons; hides, horns and skins, 20,000; vegetables and provisions, 21,000, mostly onions for Burma; cotton, 18,000; oil cake, 10,000. The remaining exports, 39,000, are individually of comparatively small tonnage. These figures give a general idea of the character of the Madras trade of import and export.

An attempt has been made to show how from small beginnings—devoid indeed of all natural advantages—Madras has gradually provided itself with shelter for vessels up to say 5,000 or 6,000 tons burden, and with modern appliances for the handling, storing and delivery of cargo. Another four years will show a great difference for the better. And even though Madras can never hope to compete with places having the natural advantages of Calcutta, Bombay, Rangoon or Karachi, she may reasonably hope to continue to serve a useful purpose in the chain of communication between her 30-million clientèle and their correspondents in Europe. There are some anomalies yet to be swept away, left since the time when a sailing ship or two per month sufficed for all the trade there was, and local traders did much of their business down on the sandy beach. The Madras merchant, and especially the native merchant, is a conservative person who does not like being hurried, but all these reforms will come in time. The benefits which the Port Trust is aiming at conferring on the local merchant are cheap freights with Europe, due to quick and safe handling of steamer cargoes and cheap lighterage charges, which may be expected to result from better shore arrangements for the handling and movement of good.



The Port of Karachi.

THIS port is the westernmost of all Indian harbours, and is, therefore, the nearest point to Europe of all the British possessions in India. The course from Karachi to Aden, in the south-west monsoon during three months of the year, is 735 miles shorter than from Bombay, and is at all times 205 miles shorter. From Bussorah this port has an advantage of 435 miles over Bombay. It lies in lat. $24^{\circ} 47' 21''$ N. and long. $66^{\circ} 58' 15''$ E., and is the natural port of Sind, the Punjab, the Frontier Provinces, the North-West Provinces, and Central Asia. Sind was joined to the Bombay Presidency at a time when practically the only communication was by coasting vessels, for then Karachi harbour was not easy of approach, and in fact, within the memory of living men, ships have been warned from attempting to enter the Port, and have been signalled "to go to Bombay." As far back as 1842 Sir Charles Napier, the conqueror of Sind, whose famous message "*Peccavi*" has become historical, urged that the Indus valley was the most important route for military and commercial communication with the Punjab and the North-West Provinces, and pointed to Karachi, then a small fishing town, as the port to which traffic would infallibly tend: and Lord Dalhousie, Sir Henry Pottinger, Sir John Lawrence, Sir Justin Shiel, General Jacob, and Sir Bartle Frere, had all recorded similar opinions before the year 1863. Karachi lies on the northern border of the Arabian Sea, 51 miles west of the principal mouth of the Indus, and at the extreme northern end of the Delta, not far from the southern base of the Pab Mountains, and close to the border of Baluchistan. By rail it is 993 miles from its Presidency town, Bombay, and 483 knots by sea, and is the capital of Sind. The bay, at the northern end of which the town is situated, is formed by the projecting point called Manora, which lies at the eastern end of a reef 10 miles long, which forms a barrier against the Arabian Sea. The mouth of the bay measures $3\frac{1}{2}$ miles between Manora and a point to the east called Clifton, and is blocked for the most part by a group of islets called the Oyster Rocks, of which Kiamari, which is now part of the mainland, was formerly the largest. The bay is 5 miles long from south to north and 5 miles broad, but only the eastern and a small part of the northern shore has been utilised as a port, the remainder being left in its primitive shallow state. The Layari, a small stream, runs in at the northern end, but the water in it only comes to the surface during a few days in the year. On the eastern shore of the bay lies a large mangrove swamp in which at one time there was a deep pool and which used to have an inlet and outlet opposite the Oyster Rocks and through the Chinna creek: on the west the Baba creek runs to very near the reef above mentioned, and probably had an opening to the sea at one time. The low

hills in the neighbourhood of Karachi are from 150 to 200 feet high, of a coarse grained arenaceous dirty yellow rock, abounding in fossils, and mostly capped with conglomerate more or less disintegrated and containing water worn pebbles. Manora Point consists of this conglomerate resting on clay which has been undermined by the sea, whereby great masses of rock have been brought down and scattered for about 700 feet from the shore and in from 10 to 25 feet of water, where they crop up irregularly. Further out the sea bottom is of sand 8 to 10 feet thick overlying the clay and interspersed with boulders. As the bottom shelves rapidly, it is not sensibly affected by the drift of the Indus, which, under prevailing winds, is towards Cutch. The sand, uncovered at low water, is blown into the harbour and, indeed, over the whole city. This together with the sea air rapidly wears away any wrought iron work, so much so that chains hung between wooden posts will fall to pieces in a comparatively short time, while the posts are practically uninjured: cast-iron is not similarly affected. The climate of Karachi, although unpleasant, is very healthy: it lies low, and the marsh land in its vicinity renders the atmosphere moist and warm. This is endurable during eight months of the year, while the sea breezes blow constantly. When the hot land winds prevail, life becomes a burden, not only to the European, but even to the native inhabitants: fortunately this happens but seldom. The only insanitary part of the town is the old town proper, and the Sadr bazaar portion or "Camp," as this together with the civil lines is called.

Here the plague has made some thousand victims since the first outbreak early in December 1896, and over eight lakhs were spent by the municipality, under the orders of the Government, in combating the scourge in the next four years, of which three lakhs were refunded. Vaccination has been compulsory for the last 20 years. The hot weather is reckoned to last three months, April, May and June: October and November are also close and sultry sometimes. The mean annual temperature is calculated to be 65 degrees in January, 85 degrees in May, and 75 degrees in November. The annual rainfall is slight and fluctuating, averaging 5 inches, which, as often as not, falls in a few hours.

Mention is made in the chronicles before 1725 of a place called Kharak, having a considerable amount of trade, which lay on the further side of the Hab river to the westwards and near its mouth. This little port got silted up, and a move was made about 1729 to a spot at the head of the present harbour and then called Kalachi Kun, and under Jam Daria Khan Jokia trade began to be attracted to the port which became known to Europeans amongst many other ways of spelling it as "Kurachee:" this has now crystallised



PASSENGER LANDING STAGE, KIAMARI, KARACHI.

into "Karachi." The harbour of Sharbunder also becoming blocked, and Tatta, the old capital of Sind, having decayed owing to the Indus silting up, much of the trade was diverted to the newer harbour. Before the Indus was tapped by the Scind Railway at Kotri, all the river traffic used to go down to Ketri and Saganadar, whence it used to be taken mostly to Bombay, while a little dribbled westwards to Karachi.

The Khan of Kelat under the Kalhora Princes having obtained a grant of the town, put his own garrison into it. Between 1792 and 1795 three Baluchi armies invested the town, and on the third occasion the leader, a Talpur chief of Hyderabad, gained possession of it and built a fort at Manora. The rule of these chiefs was so favourable to the town that trade flourished. They subjected all imports to a 2½ per cent. duty, and the customs revenue amounted to Rs. 99,000 in 1809, rising to Rs. 1,74,000 in 1837, when the whole trade of the port was valued at about 40 lakhs. In 1838 the town and suburbs held 14,000 inhabitants (of whom half were Hindus), ruled despotically by a Nawab, under the Mirs, who held both civil and military powers. Nearly all the goods were consumed locally, only 1½ lakhs going across the frontier. The imports were mostly broadcloth, chintz, etc., copper, cotton, dates, ivory, silk (raw) from Bengal and China, silk (manufactured) from England, slaves, spices and sugar. The principal exports were:—ghi, grain (wheat), indigo, madder, opium, raisins, salted fish, and wool. Most of the slaves were negroes or Abyssinians brought from Muscat. Opium (500 camel-loads) came from Marwar, and was exported to Daman, the Portuguese town. In 1843 the trade had fallen to about 12 lakhs owing to the opium trade having steadily declined for six years, it having amounted to 16 lakhs in 1837. In 1848-9 the trade had risen again to 44 lakhs, which in 1852-3 was nearly doubled, reaching 81 lakhs. The exports had been gradually creeping up, and in 1857-8 stood at 107 lakhs as against 108 lakhs worth of imports. Owing to the high demand for Indian cotton during the Civil War in America, the exports rose to 400 lakhs in 1863-4, the imports being 200 lakhs only. When peace was restored, the trade fell from 600 lakhs to 400 lakhs in 1867-8 and to 350 lakhs in 1873-4; rising again to 700 lakhs in 1882-3 and to 1,100 lakhs in 1892-3.

The seaborne trade of Sind passes almost entirely through Karachi; according to the last returns the figures are:—

	1905-06. 000 Rs.	1906-07. 000 Rs.	1907-08. 000 Rs.
<i>Imports: Private</i> ...	8,71.29	9,41.87	10,52.17
<i>Treasure do.</i> ...	36.42	57.44	87.83
<i>Exports: Foreign</i> ...	38.22	47.67	47.70
<i>Indian</i> ...	11,07.22	13,32.56	17,57.24
<i>Total</i> ...	11,45.44	15,89.23	18,04.94
<i>Treasure, Private</i> ...	5,83.96	4,80.90	4,30.34

The following tables show violent fluctuations in the exports, especially in wheat, though the general tendency is upward: the imports are also creeping up, but more steadily.

PRINCIPAL IMPORTS TO KARACHI
(Foreign & Coastwise) in Lakhs of Rupees,
ending 31st December 1905.

Year.	Coal & Coke.	Metal.	Oil (Kerosine).	Piece Goods and Yarns.	Sugar.	Timber.
1881	6	27	0	126	33	11
1882	3	20	1	142	22	3
1883	2	28	3	135	16	3
1884	3	29	1	167	15	7
1885	3	30	2	181	35	5
1886	6	36	4	210	31	6
1887	7	31	4	266	40	10
1888	7	35	4	289	37	6
1889	9	28	11	410	38	7
1890	7	32	12	298	34	
1891	9	36	15	307	59	7
1892	11	32	14	320	59	5
1893	7	40	13	312	51	8
1894	7	31	17	465	53	5
1895	8	41	3	324	67	10
1896	8	40	10	393	69	8
1897	5	29	15	334	79	7
1898	4	23	21	355	87	4
1899	12	21	1	332	75	8
1900	4	24	10	344	99	8
1901	7	40	16	498	106	9
1902	8	39	18	451	135	7
1903	12	48	26	451	111	8
1904	27	45	32	596	146	4
1905	38	48	19	679	135	10

FOREIGN ONLY.—Year ended March 31.

Year.	Coal & Coke.	Metal.	Oil (Kerosine).	Piece Goods and Yarns.	Sugar.	Timber.
1906	1	50	16	430	176	—
1907	2	48	32	477	191	—
1908	4	71	44	509	195	—

PRINCIPAL EXPORTS FROM KARACHI
(Foreign & Coastwise) in Lakhs of Rupees.

Year.	Bones.	Cotton.	Grain (Wheat).	Hides & Skins.	Seeds (Gin-gelly).	Seeds (Rape).	Wool.
1881	—	32	9	14	8	17	50
1882	—	43	95	12	9	9	66
1883	—	44	130	11	29	32	55
1884	—	35	205	14	46	74	53
1885	1	37	586	15	52	80	55
1886	1	46	257	18	31	46	61
1887	2	63	101	19	26	37	60
1888	1	72	128	20	47	38	80
1889	4	74	290	17	34	39	91
1890	11	83	270	12	19	20	77
1891	4	67	460	15	27	44	97
1892	5	43	261	24	32	14	98
1893	7	96	227	20	77	138	88
1894	10	828	949	17	71	111	110
1895	15	123	328	43	70	47	103
1896	14	173	104	35	55	27	110
1897	16	140	139	34	42	33	111
1898	14	116	507	27	30	95	91
1899	18	95	313	52	60	62	101
1900	20	117	106	62	35	27	77
1901	9	148	323	38	25	222	66
1902	21	178	492	40	38	71	65
1903	18	277	717	49	47	43	80
1904	12	306	1111	49	44	107	103
1905	12	283	841	68	26	83	99

FOREIGN ONLY.—Year ended March 31.

Year.	% of Total India.	Bones.	Cotton.	Grain (Wheat).	Hides & Skins.	Seeds (Gin-gelly).	Seeds (Rape).	Wool.
1906	64	—	188	587	—	—	110	—
1907	89	—	235	702	—	—	205	—
1908	90	—	324	833	—	—	227	—

The vessels in the Foreign trade using the port were as follows (coasters excluded):—

	1905-06.		1906-07.		1907-08.	
	No.	Tons. 000	No.	Tons. 000	No.	Tons. 000
Entered:						
Steamers ...	202	382	206	399	199	401
Sailers ...	237	19	176	15	241	19
Cleared:						
Steamers ...	288	608	343	774	388	860
Sailers ...	211	16	170	15	214	15

The steady rise in coal imports is due to the increase of Bengal coal brought in "coasters" from Calcutta, which is ousting the wood fuel and foreign coal formerly burnt on railways and in factories.

The inhabitants of the city increased as follows:—1872, 56,753; 1881, 73,560; 1891, 105,199; 1901, 116,663 including 8,019 in the cantonments. Of the total

60,003 were Muhammadans, 48,169 Hindus, 6,158 Christians, and 1,823 Parsis.

Karachi is the head-quarters of the following Missions: the Church of England, the Roman Catholic, the Church of England Zenana, and the Methodist Episcopal.

One of the sights of Karachi is the Mugger Talao some way out, and one of the advantages of the place are the cows which are so noted as good milkers that many of them are shipped to Bombay. They are bred in the hill tracts within a radius of 30 or 40 miles. The Muhana tribe of Muhammadans are great fishermen, and live mostly in hamlets near Karachi. At Kiamari there used to be a village of them: they catch rays, sharks, and skates, and some pearl oysters of inferior quality have been found in decreasing numbers. Good building stone is found among the arenaceous lime-stones of the Gaj group near the city, and has largely been used in the building therein. A few miles out at Maurypur salt is manufactured from salt water.

Karachi is the port of call for the Austrian Lloyd, British India, Bombay Steam Navigation, City, Clare, Hall, Hamider, Hansa, Jiwaji, Strick, and Wilson liners. The North-Western Railway links the city with the frontier, the Punjab, and the United Provinces; the Jodhpore-Bikaner Railway with the Thar and Parkar district; while the line opened in 1904 from Hyderabad to Bandi, 54 miles, will form part of the Bombay Karachi connection through the Runn of Cutch, which, until that has been completed, has to be made by a very roundabout route. Three trade routes keep Karachi in direct communication with Afghanistan and Central Asia, *via* the interior of Sind, Lus Bela and Kelat; and, moreover, any communication, by rail with the Persian Gulf and countries beyond are almost certain to pass through Karachi.

Sind is under a Commissioner whose residence is in Government House, Karachi, originally built by Sir Charles Napier when Governor of the Province, and now fitted with electric light and fans. The city forms a separate charge under a Deputy Collector and is the Head-quarters of the District.

Karachi contains a District Jail, and various educational and medical establishments. Among the educational institutions are the Sind College, and the Dayaram Jethmal Sind Arts College, founded in 1887, to which is attached a hostel accommodating some of the 120 scholars. Students are prepared for the first LL.B. There are 68 schools with a daily attendance of 8,100; in fact, the progress of education in the city is very satisfactory. Of these schools the numbers and attendance are:—Boys, 48 with 6,239; girls, 20 with 1,861. The Narayan Jagannath High School is under Government management and the students are prepared for the matriculation and final school examination: it receives Rs. 10,000 from Provincial Revenues. There is also a Muhammadan High School, an engineering class, and a training class for mistresses. St. Patrick's Roman Catholic School is capable of housing 40 boarders and 200 day scholars; the European and Eurasian School called the Karachi Grammar School, founded in 1854 under the auspices of Sir Bartle Frere; the Anglican Mission Schools, and the Parsi Virbaiji School.

There are three hospitals and four dispensaries with over 70,000 patients; the Civil Hospital has between one and two thousand in-patients; the Dufferin Hospital for females, built by Mr. Edulji Dinshaw in 1901, treats over 10,000 patients, of whom over 200 are *internes*.

There are three hospitals in cantonments, a military one (formerly called the Sick Hospital) established in 1869, a cantonment hospital in the Preedy quarter opened in 1901, and one near the barracks for camp followers and servants.

Amongst the many other public and private buildings, there are four Railway Stations, Cantonment, McLeod, Mansfield Import Yard, and Kiamari: a railway workshop, Messrs. Herman & Co.'s Ironworks, and three cotton presses, the Sind Press Co.'s McLeod Road Press, out-turn 350 pressed bales a day; the Jyabji Presses, built in 1865 at a cost of Rs. 225,000, out-turn 250 bales; the Albert Press, leased to the same company, with an out-turn of 390 bales, and the Karachi Steam Roller Flour Mills.

Other buildings are the Anglican Church of Holy Trinity which has a hideous tower and was originally meant to be a land-mark; the Presbyterian Church of St. Andrew, and Christ Church; the Napier Barracks, the Sind Club, the Empress Market, the Post Office, and the Frere Hall Municipal building which was opened, incomplete, in October 1865, after Rs. 1,75,000 had been spent on it. A statue of the Queen-Empress Victoria was erected in front of the building by public subscription and was unveiled by the Prince of Wales in 1906. Besides the Napier obelisk on the Mole already mentioned, there is a clock tower memorial to Sir William Merewether at the junction of the two principal thoroughfares, the Bunder between the Custom House and Cantonments, and the McLeod Road on which most of the European business offices are situated. The residential bungalows are well isolated and therefore catch the sea-breezes, but the dust is difficult to keep down and the air is always more or less gritty. These houses are dotted along the road to the cantonments on the East and merge into the civil lines adjoining them.

The military portion of the city consists of the arsenal, and of three lines, depôt, artillery, and European infantry; the depôt lines, the oldest military portion of Karachi, were originally built for reliefs passing through. The normal strength of the garrison is 1,300 and there are 800 volunteers.

There is a public garden half a mile from the cantonments, covering 40 acres and with a very good zoological collection. An extensive dâk bungalow is also to be found, and an Afghan sarai, about 3 acres in extent, rebuilt by the municipality in 1873 at a cost of Rs. 20,000 for the accommodation of Kandahar caravans.

At Clifton, at the extreme Eastern horn of the bay, several bungalows have been built on the edge of the cliffs, and the clean sand at foot of these forms excellent bathing. The place is much favoured, especially by the well-to-do natives, as the sea-breezes come straight off the water and are laden with a minimum amount of sand.

Manora Head, the western horn of the bay, is provided with a fixed light 148 feet above mean sea-level, with a range of 20 miles in clear weather, and is the first sign

of land after passing Cape Monze or Ras Muar, the landmark of vessels making Port Karachi from the west. A fort was first erected here at the end of the 18th century: this has been replaced by a modern system of fortification. Here are also to be found the port and pilot establishments, the harbour improvements office, and one belonging to the Indo-European Telegraph Department. An English Church has been built for the benefit of the residents and of the sailors frequenting the harbour: likewise a European school and a library with billiard room attached. Manora is now a cantonment and a military sanitarium in place of Ghizni beyond Clifton on the other side of the harbour.

The Government seems unable to make up its mind whether or not to make the port a regular trooping one. There used to be a Rest Camp here, but when the tents became worn out, the details, etc., were shifted back to Deolali. Since the visit of the Prince of Wales in the battleship *Renown*, troops have again been sent this way, but they are entrained direct from the transport, and the rest camp has not yet been re-established.

From Kiamari, which will be further described later on, the Napier Mole stretches for three miles northwards along the harbour, and on it is a road, the East India Tramway, and the North-Western Railway. The mole, begun by Sir Charles Napier, was completed in 1854 under the commissionership of Sir Bartle Frere. The tramway reaches to the Public Gardens, a distance of 6 m. 65 ch. It was at one time worked by steam, which had to be abandoned; after many vicissitudes it is at last beginning to pay its way and more.

There are four English and four Native periodicals published in Karachi: the *Karachi Chronicle*, the *Phoenix*, the *Sind Gazette* and the *Sind Times*. The native ones are in Gujerati, Persian and Sindi.

The municipality was established in 1852, and from 1891 to 1901 had an income of 12 lakhs. This income was made up of Octroi, rates and taxes under special acts, properties and powers apart from taxation and grants and contributions. The expenditure in 1906 was mostly on General Administration, Rs. 1,05,000; Public Safety, Rs. 30,000; Public Health and Convenience, Rs. 599,000; and Public Instruction, Rs. 60,000. The one-tenth draw back allowed on the through goods Octroi, amounted to Rs. 1,60,000.

Waterworks.—Karachi may be divided into two portions, *viz.*:—the Native quarter, only a few feet above high water; and the European quarter including cantonments, more inland and higher. The city is surrounded on the south and west by mud flats, 15 in. below high water, raised by the deposit of salt mud, on which only mangrove and soda plants grow. On the south there are sandy dunes on which goats-foot creepers bind the sand. The south-west monsoon never extends beyond Lakhput Bunder on the Coast of Cutch, and the north-west monsoon does not quite reach Karachi. The rainfall is generally very scanty indeed, in other years none falls at all, while 26 in. fell in 1851, 28.45 in. in 1869, and 25.5 in. in 1878, and again in 1908 there was a heavy fall which badly breached the railways.

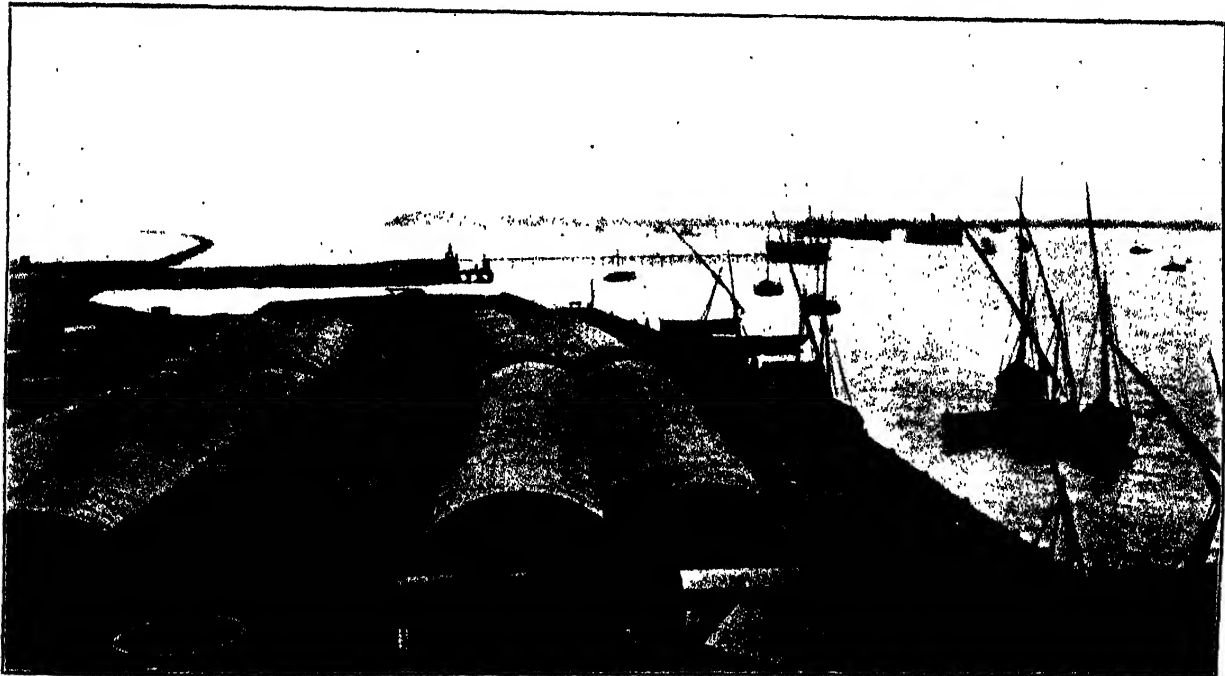
The Pab Hills near Karachi are the continuation of the Khirthar chain on the western boundary of Sind, which extends in a southerly direction for 90 miles to Cape Monze. In their ravines the Hab, a permanent river, takes rise. The Kohistan tract of hills in the Karachi collectorate gives rise to the Lyari and Malir rivers, both torrential, which are not tributaries of the Indus.

The Lyari rises a few miles north of Karachi and falls into the harbour at its upper end. The Malir rises between Karachi and Sehwan and, after a south-western course of 60 miles, falls into Karachi Bay by a creek a few miles from the town.

In the Malir, even when the bed is dry, water is found a few feet below the surface, and at 10 to 30 feet it is plentiful. The geological formation over the line of the aqueduct which now brings the Malir water to the

distributed by carts, and as soon as the railway was opened to Kotri, it was brought thence by rail for making ice.

Sir Charles Napier took some steps to remedy this state of things, and since his time schemes have been considered of Capt. Baker, R.E., in 1845; of Capt. De Lisle, R.E., in 1854; of John Brunton, in 1860; of Newnham, in 1864; and of Major-General Merriman, R.E., in 1868. These were all practicable, and, with the exception of Newnham's boat canal from the Indus, suitable for the municipality to undertake. Government, however, persistently refused to contribute to the cost, and eventually Mr. James Strachan, as engineer to the municipality, submitted a scheme in 1873, which has been carried out. General Merriman had proved that the Malir could be depended on for 1,200 gallons per minute in the driest season, so an estimate was prepared for



HARBOUR ENTRANCE, KARACHI.

city is identical with the *Gaj* or Miocene group, intermingled with *Munchars* or Pliocene; conglomerates extend to about 4 miles from Karachi, where an elevated ridge crops up and divides the basins of the Lyari and Matis. For some years after the British took possession in 1839, the inhabitants resided in what is now called the old town quarter—miserable and dirty in the extreme, with few roads and no means of locomotion. Water used to be got from shallow wells in the bed of the Lyari: these used to run sweet for some 20 days and then had to be abandoned for new ones. Sir Bartle Frere said of the best of it, "though the permanent residents get used to it, and it does not disagree with them, it has, on all newcomers, the effect of a weak solution of Epsom or Cheltenham salts." So used to it were the old inhabitants that on getting fresh water they considered it insipid. The water was

giving 25 gallons a head to 80,000 inhabitants at a cost of Rs. 12,00,000. Financial difficulties caused delays, and in 1879 this estimate was cut down to Rs. 8,50,000, giving 8 gallons a head. Sir Richard Temple, as Governor of Bombay, laid the foundation stone of the distributing reservoir on February 21, 1880. Water is obtained from two wells on the right bank of the Malir, 7 miles from Landi station and about 16½ miles in a bee-line from Karachi; they are 40 ft. inside diameter, 36 ft. deep with a 3 ft. steining. The first 6,880 ft. of water conduit is of 24 in. cast iron, turned and bored pipes; then there is a masonry conduit, 16 m. 20 chs. long, ending in a distributing reservoir at Karachi. The Thudda river, where the pipes end, is crossed by an inverted syphon 500 ft. long, composed of two 24 in. pipes, while under some nullahs there are masonry conduits. It was estimated

that the surplus water would be sufficient to irrigate about 146 acres. The distributing reservoir is on the side of a hill about one mile east of the cantonments; it is 200 ft. long by 150 ft. broad, and the water surface is 10 ft. 9 in. above the floor level. The tank is covered in by masonry arches, with 12 in. of concrete above the extrados and 2 ft. of earth over that. The water is delivered 6 in. above the floor, 62.35 ft. above mean sea level, and 55 ft. above the average ground floor level of houses in the native town. The main delivery pipe from the reservoir is 150 ft. long and 24 in. diameter; then a 21 in. main runs from it straight through the Sudr Bazar to the native town, and another 12 in. through the cantonments, civil lines, railway quarters and old town to Kiamari. The 21 in. main was not laid at first, but on June 11, 1883, the municipality sanctioned the raising of a Rs. 2,89,000 loan to complete the scheme. Public street services for filling *pukkals* on bullock back, and other vessels are provided at frequent and convenient spots about the town and camp, besides 28 hand services for filling *gurrahs*. Special supplies are delivered to the railway workshops, the arsenal, the jail, to troops, both European and Native, and to various mills and factories, as well as for the hydraulic machinery at the wharves. The total cost has been Rs. 11,50,000 for a maximum supply of 2,500,000 gallons, at a cost of Rs. 9 per day for 20 gallons *per capita*. The reservoir cost Rs. 67,000 and contains 200,000 gallons, or Rs. 33.8 per 1,000 gallons; the water is charged at the rate of Re. 1 per month for $\frac{1}{4}$ in. connections; Rs. 2.8 for $\frac{3}{4}$ in., and Rs. 5 for 1 in. The works were commenced on February 18, 1880, and were opened on April 4, 1883. The extension was commenced in July and completed in October 1884. In 1906, the capital outlay was Rs. 9,069; the establishment, repairs and removal fund, Rs. 43,643.

Sewerage.—Up to 1875 the sewerage was not regulated in any way, and sullage was collected in kutchas or unlined cesspools or thrown on the surface. The cesspools were holes in the ground 10 or 12 ft. deep: they were never cleaned, for the contents escaped readily enough into the gravelly soil, and the pipes connecting them with the houses were never trapped. Since 1875 cesspools have all been lined and ventilated: they are cleaned periodically and all connecting pipes are now trapped.

After the introduction of water-supply, the necessity of sewerage, especially in the case of the native town, became a matter of increasing importance. In 1893, the consumption of water was 1½ million gallons a day; about 5,000 gallons of sullage and waste water had to be removed daily, but the want of funds again proved the obstacle. The Municipal engineer, Mr. James Strachan, submitted several schemes between 1886 and 1890, and eventually a loan of six lakhs was sanctioned for sewerage of the old town quarter. As already stated rain falls sometimes at the rate of an inch an hour, and as the area drained by the storm water channels measured 3,000 acres, it was decided to exclude this water from the sewers. Sewerage could not be taken to the sea, as it would have been necessarily discharged to wind-ward of the town. It was, therefore, decided to utilise it on the land. The area to be dealt with measured 175 acres, the population being 30,000, and

it was only a few feet above high water mark: it was reckoned that 15 gallons *per capita* would have to be dealt with, or 450,000 gallons daily. The Shone system of hydro-pneumatic ejectors was adopted. The city was divided into five blocks, each of which was provided with two ejectors of a combined capacity of 400 gallons, or 200,000 gallons in all, discharged once a minute by compressed air into pipes leading to the sewerage farm. A sixth ejector was fixed for the waste water from the bathing ghâts of the Hindus. The sewerage was raised 50.70 ft. and only 60 acres were cultivated at first; the area being extended as the population increased up to the present 140 acres. The first cost of the scheme was Rs. 717,075. The crops had to be sheltered from the sea-breeze which has a most damaging effect on all plant life. The crops tried have all done well except common barley, which tillered too much, the stalks being too weak to support their own weight: they were, bajri, chubber, guinea grass, Indian corn, Italian rye-grass, juar, lucerne, millet, sugarcane, and wheat spelt. The capital outlay on drainage in 1905 was Rs. 1,33,000, six lakhs having been spent on extensions: establishment, repairs, etc., came to Rs. 23,000, while conservancy cost Rs. 1,67,000. Seven more ejectors have been installed of 250 gallons capacity, and an average of 1,100,000 gallons of sewerage are daily raised and spread over the land, without causing any nuisance whatever.

Karachi Harbour.—As already stated Sir Charles Napier was the first to appreciate the possibilities of this port, and as a step towards improving it he designed and commenced the mole across the tidal marsh between Karachi and Kiamari: the obelisk opposite the native Jetty, near the northern end of the bay, marks the place where his work ended. In 1855, the late Sir William (then Mr.) P. Andrew obtained the concession for the Scinde Railway, by which to tap the boat traffic down the Indus at Kotri and so bring it by rail to Karachi. This he described as "the neck of the funnel" and expressed the opinion that all present and future traffic of the vast territory it would serve would tax its capabilities to the utmost. In 1856, the Government applied to the late James Walker for a report, which he submitted in 1858. The plan accompanying it shows the Napier mole completed, but no other works. There is a pool in the backwater 14 ft. deep at low water connected by a tortuous channel with Chinna Creek. A similar depth is shown in a double channel beginning near deep water point, and reaching into deep water soon after passing a bar projecting from Manora Point, and another isolated pool of the same depth opposite Kiamari.

The number of ships using the port, which numbered 2,189 in 1854-55 of 114,889 tons, rose to 3,262 and 290,743 tons in 1859-60.

Sir Bartle Frere on April 4th, 1859, turned the first sod of the Scinde Railway from Karachi to Kotri on the Indus, 108 miles: it was opened in 1861. An iron viaduct 1,000 ft. long wherewith to cross the mouth of the Chinna Creek had been ordered. Locomotive and erecting and repairing shops had been erected near Cantonment Station at a junction of the main line and a branch to Ghizni on the coast, east of Clifton, where there was a pier and a dockyard.

In 1863, the eastern groyne at Kiamari was about half done: a new Custom House had been built at the north end of the Napier mole, which obstructed all improvements until it was cleared away quite recently. The Government were deepening the bar and intended providing greatly extended wharf and

considerations, he said, can hardly be other than a conviction that direct steam communication would be established at no distant period; and so it has, but the mails still go round, *via* Bombay, as the direct steamers are all slow ones, and the companies stand out for exorbitant rates for a direct *fast* service between Aden and Karachi whereby 2 or 3 days might be gained between London and the North-west frontier. During the construction of the Scinde Railway more than a hundred ships had brought materials to the port without a single mishap.

It is curious to note that, at this time, Sir George Bidder regarded Bombay and Karachi as the only two good ports. "Madras was no port at all, and Calcutta was as bad as it could be."

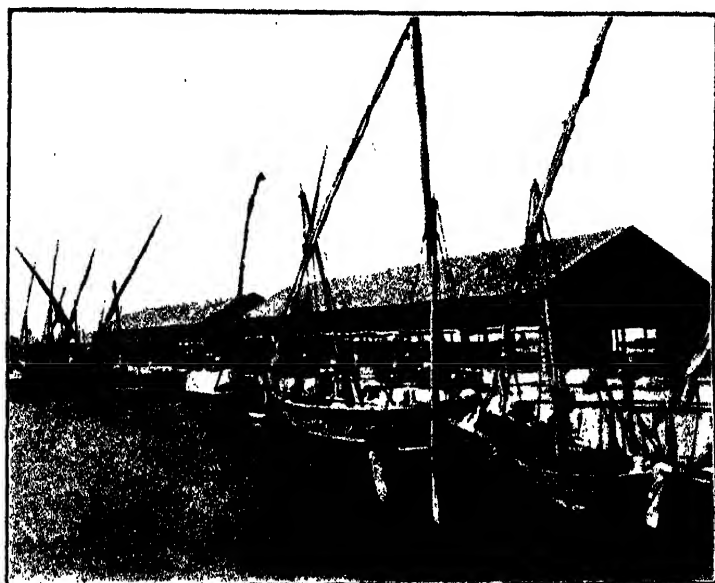
The Kiamari groyne was completed in 1863 and greatly increased the scour in the harbour, but deposited the sand at the entrance, owing to the want of a breakwater on the west to conduct the scour into deep water. The Government had relied on this groyne doing all the work, but were disappointed, and the breakwater and dredging, as at first contemplated, had to be carried out.

By 1874, the bridge and the mole had been built, Chinna Creek had been stopped up, and a branch of the railway had been taken round the swamp from near Cantonment station to and along

Kiamari Island. The main line ended at the Bunder Head and did not reach as far as the new Custom House. A training bund along the new channel past the Native Jetty in the Upper Harbour had been put down, and a depth of 14 ft. below datum had been obtained. There was a railway pier and

quay accommodation direct with the Scinde Railway, whereby a great improvement was being introduced and was making rapid strides, so they said, in the system of loading and discharging cargoes.

The bar at the mouth of the harbour had then 17 to 18 ft. of water at ordinary tides and 21 ft. at springs—with a greater depth further in. There were two miles of native boats collected at Kotri, and not a single boat went below that place: 108 miles of railway were substituted for 230 miles of creek navigation. Karachi is the only land-locked harbour between Bombay and the Persian Gulf—it is perfectly safe and easy of access by day and night for large ships even in the monsoons. Commodore Young in 1854 took the steam frigate *Queen* into the harbour twice during the night and during the south-west monsoon; the *Bussorah Merchant* drawing 20½ ft. passed the bar when the register showed 22 ft. Capt. C. D. Campbell, R.N., was the first to take a large armoured steamer into the harbour. Ten years before Sir Bartle Frere had stated that on the line from Karachi to Aden the south-west monsoon does not blow with violence and is, in fact, a steady trade wind equally favourable for the run to or from Aden. The result of these



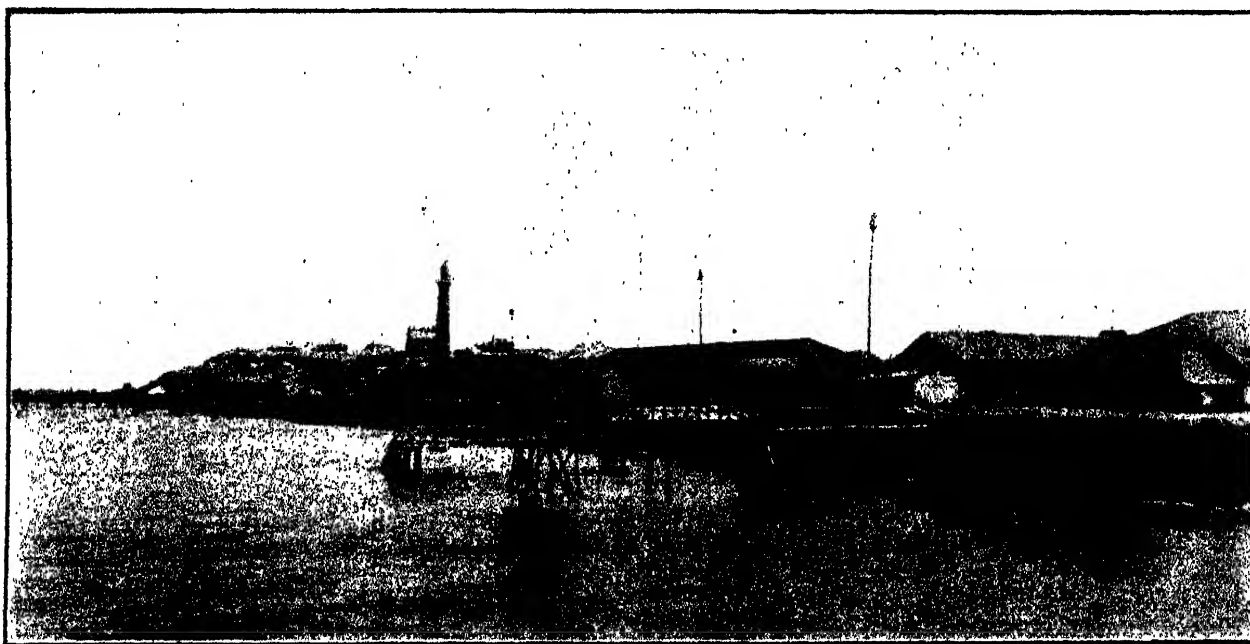
NATIVE JETTY, KARACHI.



ERSKINE WHARF, KIAMARI, KARACHI.

another one at north end of Kiamari Island; the pool in the backwater had gone; the east groyne at entrance extended half way along Manora point: the breakwater was completed, and there was more than 20 ft. of water below datum in a narrow entrance going to a point half way up the groyne: there was a pool of the same depth opposite Kiamari: and the channels generally had widened but not deepened. The work according to the plans of Messrs. Walker and Parkes had been begun in 1860; the first block of the breakwater was laid on August 1st, 1871. It was not completed till some 14 years later, on January 17, 1874. Up to 1865 the works were under the Public Works Department: they were suspended for want of funds from 1866-68 and were resumed the year after, but much delay was caused throughout for the same reason. The East groyne at the entrance of the harbour at the end of 1875 was 8,900 ft. long, the dredging of the bar was in

structure at the outer end and fanned towards the harbour. Above this concrete blocks are laid measuring 12 ft. long by 8 ft. deep by $4\frac{1}{2}$ ft. thick, weighing 27 tons a piece, and each block representing nine inches in length of the breakwater: as many as 19 of these were laid in one day and six of them in 40 minutes. They were set on edge without bond, two forming width and three the height, or 24 ft. each way. They are laid with an inclination towards the shore of 3 in to 1 ft. or 1 in 4. For 408 ft. from the shore the top was levelled off with concrete to 4 ft. above H. W. S. T., dropping to this level in the next 468 ft. The range of tides is $7\frac{1}{2}$ feet at mean springs, and 12 ft. at extraordinary springs. Storms are unknown; the greatest velocity recorded in 1870-75 was an hour's squall from the N. N. E. of 62 m. p. h. From the middle of June to the middle of September the S.-W. monsoon brings heavy seas. From mid-October to mid-February strong eas-



DISTANT VIEW OF MANORA, KARACHI.

progress: the rocky obstruction at the mouth called Deep Water Point was being excavated: a channel $2\frac{1}{2}$ miles long had been formed in the upper harbour: a jetty 1,400 ft. long existed at the end of this channel: an iron screw pile bridge had been thrown over the gap made in the Napier mole, through which the breakwater was filled by and emptied into the channel: the Chinna Creek had been closed by a bund 2,700 ft. long. The direct entrance channel was now 6 ft. deeper than the old circuitous one, and all vessels, from native craft upwards, could now use the harbour at all times. 45 lakhs had been spent on improvements, of which the Manora breakwater had been responsible for 10 lakhs. The breakwater is 1,500 ft. long terminating in 5 fathoms at low water: the base is of rubble stone, levelled off mostly to 15 ft. below low water; its width on top is 100 ft., and it is extended 60 ft. beyond the super-

terly winds blow, but do not raise a great swell: between these periods strong breezes or squalls occur and raise seas that are not formidable to navigation.

In his presidential address on January 11th, 1881, Mr. James Abernethy, the President of the Institution of Civil Engineers, stated that the entrance channel was then direct and widened and had a depth of 20 ft. at L. W. and 28 ft. at H. W.: that the harbour was fully sheltered from heavy seas and that the internal harbour had also been considerably enlarged.

With the exception of the bridges over the Indus, the Indus Valley Railway was completed in November 1879, and the Merewether Pier was opened in February 1883, having one berth for a large vessel; it was fitted with one 32 ton, and seven 35 cwt. moveable hydraulic cranes. The pier was T-shaped, and barges could be berthed inside the arms. As shown in the table given

earlier, the exports of wheat rose from 9 lakhs in 1881 to 130 lakhs in 1883 and to 586 lakhs in 1885. This sudden flood was quite unexpected and it was almost impossible to cope with it. The Railway Company remodelled the export yard at the McLeod Station: opened a separate import yard near the native jetty; built a wharf 720 ft. long at Kiamari for lighters: erected extensive shedding there and rearranged their sidings at that place so as to give an enormous stacking ground. All the wheat from the Punjab had to be taken across the Indus at Sukkur in boats, and the arrangements both at Multan and Kotri were heart-breaking, owing to the line between these places belonging to the State while the railways on either side were in private hands.

The Erskine Wharf was opened in 1887 and five of the largest steamers then known could lie alongside, and were served by one 12 ton, and twenty-two 35 cwt. moveable hydraulic cranes.

The Railway to Quetta was opened in the same year, and the Sukkur bridge over the Indus on March 27, 1889.

At the end of 1891, Mr. Price was able to report that the breakwater had practically required no repairs, though the outer part had settled below H. W. The expenditure on maintenance had averaged $\frac{1}{4}$ per cent. and had been mainly applied in raising the top with a layer of concrete to make up for settlement into and with the rubble mound, and in feeding the mound, mostly at the outer end. There are now four Dredgers employed at the Port, viz.:—the *Edward Jackson*, *William Price*, *Albuquerque*, and *Shigui*, and they lifted 1,054,735 tons, or 21,087,500 cubic ft. of material in 1907.

The following figures show the great improvement in the area of the harbour with 20 ft. at low water. 1858, 58'64 acres: 1890, 201'47 acres: 1898, 237'54 acres: 1907, 310'33. The patch called "Deep Water Point" near the entrance, is still useless as an anchorage at certain times, and a bare rock still exist on the west of it, though much smaller, and the so-called "Morris Rock" in the middle of the entrance-channel, though lowered so as to clear the deepest vessel at all times, still stands 20 ft. above the bottom and so causes eddies. The entrance channel has now a sufficient navigable width with a depth of 24 ft. at low water right up to the northern limits of the wharves which are 4,000 ft. long, and which now extend as far as they can until the main line of the railway has been shifted to its new position further north. The effective depth on the beacons entrance line to the harbour is now 25 ft. at low water ordinary spring tides. The average income of the Port is over 20 lakhs, while its expenditure is under 16 lakhs. It is paying off a debt of 66 lakhs.

The line Hyderabad to Shadipalli was opened on the standard gauge in 1892 (after much discussion it was converted to metre gauge in 1901) and connects with the Jodhpur-Bikaner line, thereby opening a shorter route to Bombay and with the Rajputana-Malwa system. Strenuous efforts have been made to prolong this metre gauge line into Karachi. On January 1st, 1892, the North-Western Railway was extended to

Chaman from Quetta. The Southern Punjab Railway from Samasata to Delhi was opened on November 10th, 1897, whereby the distance to Delhi was shortened by 187 miles. The Kotri bridge over the Indus was completed on May 25th, 1900, and the Kotri-Rohi chord along the left bank of the Indus in December 1896.

An export yard covering 52 $\frac{1}{2}$ acres was made available during 1895-96, and here the wheat can be sorted, graded, and cleaned. The refraction or dirt is not allowed to exceed 2 $\frac{1}{4}$ per cent., and even this amount is penalised, so that wheat is now shipped as clean as possible and in the original bags—whereas formerly it used to be cleaned up-country to save weight in rail transit, and a fixed and large proportion of dirt used to be added in the merchants' godowns to which it was carted from the railway station. As wheat is paid by bulk in ships, the dirt did not add to the cost of transport.

An import yard covering 19 acres was established in 1896, and is close to the business part of the town. There are sheds and sidings on it.

At the request of the Port Trustees a committee of experts was appointed by the Government and a scheme has been formulated to cost 100 lakhs. Extensions and improvements to the wharves to accommodate 15 large steamers, with a passenger basin, overbridge for the road, and a new bridge east of the present one in the Napier mole, are estimated to cost 45 lakhs. A new export yard of 150 acres to be reclaimed from the backwater on the Queen's Road and a new Import yard come to 55 lakhs. All this work is in hand.

The Chamber of Commerce was founded in 1860, being the first year when European firms from Bombay opened branches in the city. A building to accommodate the Chamber was opened early in 1865. Since 1893, the Chairman of the Chamber has been regularly appointed to the Presidency Legislative Council. The Chamber is composed of 45 Members, and the "Committee of the Chamber" has eight Members besides the Chairman and Vice-Chairman.

The Port Trust was formed in 1886 and the Act establishing it was amended in 1892. The Collector of Karachi is the Chairman, and the Collector of Customs the Vice-Chairman, of the eleven Members two have to be natives of India. Government nominates the two Chairmen and four other Members: the Chamber of Commerce elects three, and the Municipality two. Besides the work enumerated above, the Port Trust have elaborated a scheme for extending the wharfage accommodation at the head of the harbour to any extent required, from time to time, by building piers on what has been called the "comb" principle, jutting out from the shore: long enough to serve the largest vessels, and sufficiently far apart to allow them to swing out from their berths. The policy of the Trust has ever been to anticipate requirements so as not to check the expansion of the traffic; whereas it is difficult to get Government sanction for work until the pressing necessity for it has arisen.



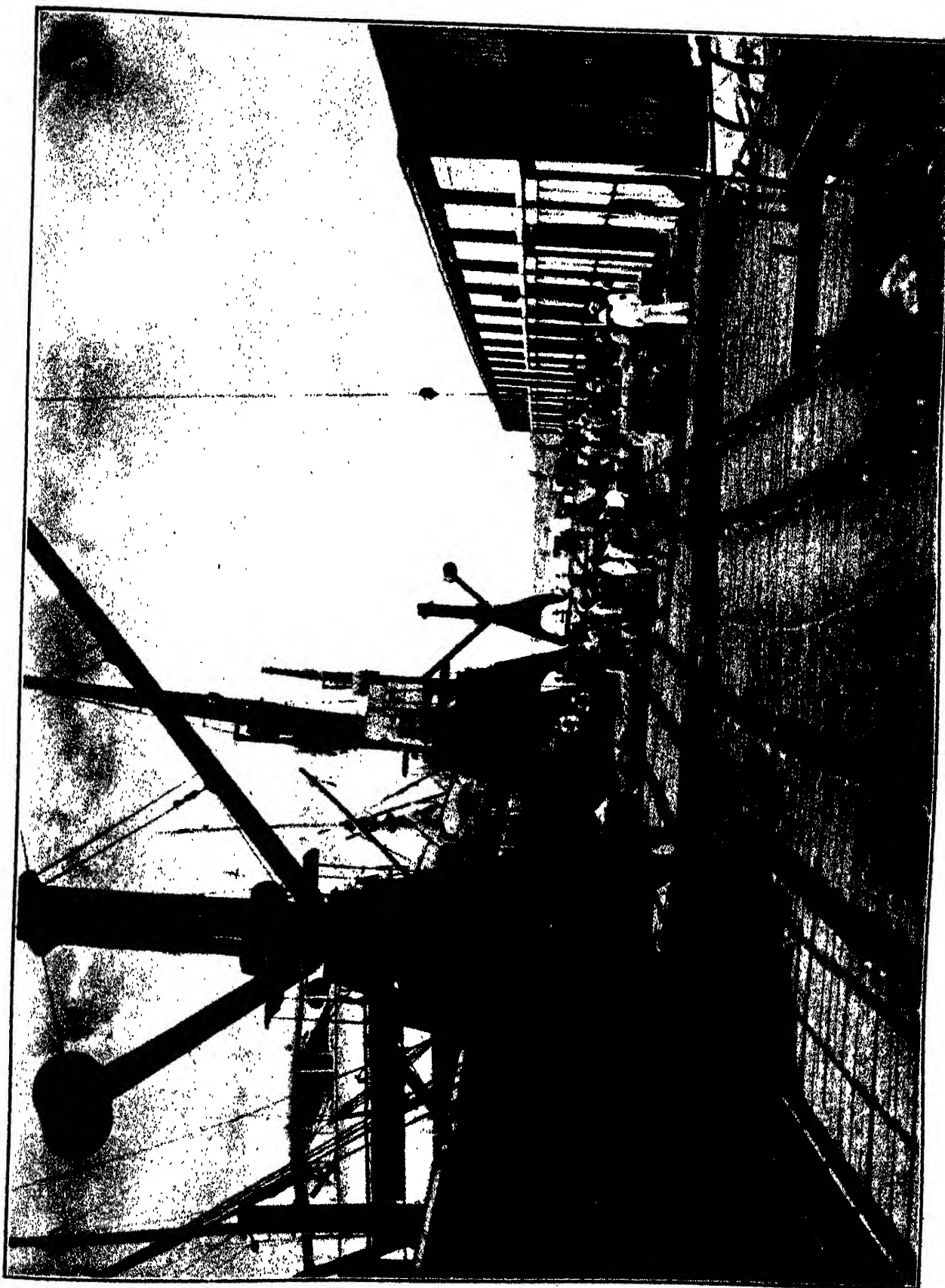
The Port of Chittagong.

INTO the waters of the north-eastern extremity of the Bay of Bengal flows the tortuous stream of the Karnafuli (or Karnaphuli River), and five miles inland from its mouth lies the port of Chittagong, while a mile and a half further up stream the town itself is reached.

The district is in the Lieutenant-Governorship of the recently-created province of Eastern Bengal and Assam, and lies between $20^{\circ} 45'$ and $22^{\circ} 59'$ north latitude and between $91^{\circ} 30'$ and $92^{\circ} 23'$ east longitude. The area is some 2,597 square miles and the official return made at the census of 1881 gave the population at 1,132,341, but a more recent return places it at 1,353,250. The district is bounded on the north-west and north-east by the Feni (Pheni) river which separates it from the adjacent districts of Noakali and Tipperah and from the semi-independent state of Hill Tipperah, on the east by the Chittagong Hill Tracts and the Arracan province of Burma, on the west by the Bay of Bengal, and on the south by the Naf river. The chief, and in fact the only, town of any importance in the district is Chittagong itself which is also the only port, and serves as an outlet and inlet for practically the whole of Eastern Bengal, its population and its trade.

Chittagong and its surrounding district has a long and varied history. It originally formed part of the once extensive and wealthy independent Hindu kingdom of Tipperah, and prior to its conquest by the Mussulmen, it had frequently changed hands and had known many masters. It lay on what was in those far off days the disputed frontier between the Hinduism of Bengal and the Buddhism of Burma, so that it is easy to understand that it formed a chronic source of feud between the Hindu king of Tipperah and the Buddhist king of Arracan. It was not destined, however, to own allegiance to either for long, for some time during that period when Afghan supremacy held sway in Bengal (the thirteenth to the sixteenth century) it was first captured by the Mussulmen. The Portuguese historian Faria de Sousa tells us that in the year 1538 the Viceroy of Goa despatched an envoy to the then reigning Afghan king of Bengal, who landed in Chittagong and proceeded from thence in state to the capital of Gaur. The king, however, held his own views as to the intentions of the Portuguese, and as these were not of the best, he seized thirteen members of the embassy and eventually captured the whole crew of their ship. In revenge for this outrage, the Portuguese fitted out a powerful expedition which captured, sacked, and burnt Chittagong, but does not seem to have deemed it prudent to go far inland. It would appear that it was shortly after this that the Mohammedans first conquered the town and district, but during the great struggle that took place at the end of the sixteenth

century between the Moghuls and the Afghans for supremacy in Bengal, the Arracan Raja seized the favourable opportunity presented of reasserting his claims, and Chittagong was annexed to his kingdom as an outlying and tributary province. Although it was in reality definitely separated from the Moghul empire, the Musulmen after the final expulsion of the Afghans from Bengal ignored the fact that the district had been reconquered by the Arracanese, and Todar Mall, the Emperor Akbar's finance minister, continued to treat it as an integral portion of his master's empire, as in the year 1582 he fixed its assessment on the rent roll of the Mohammedan dominions "by estimation" at Rs. 2,85,607. Despite this, Chittagong was held by the Arracan Rajas until the year 1666 when it was re-annexed to the Delhi Empire. The Arracan Raja of that period employed a number of Portuguese and half caste adventurers and criminals who had escaped from justice in the European settlements of Goa, Cochin, and Malacca. Some of these won their way by their superior knowledge of seamanship, by their desperate courage, or by sheer force of circumstances, to the highest posts in the Raja's fleet, and added largely to his (and no doubt their own) income by piracy. Their galleys swept the sea-face of the Sunderbans and ravaged all the villages in the vicinities of the estuaries by which the Ganges and the Brahmaputra rivers find their way into the Bay of Bengal. They also waged a merciless but more legitimate warfare upon the Moghul fleets, using Chittagong Port as their head-quarters, from whence they sallied forth to check the progress southward of the Mussulman navy, besides protecting the Arracan frontier and sea-coast from Islam. These Portuguese adventurers found worthy assistants in the Mughls (the people of Arracan itself) and in conjunction with them they penetrated high up all the rivers of Bengal and carried away into slavery the inhabitants of the riverside villages. To such an extent were these depredations carried, that on a map of Bengal and Behar by Major J. Rennell, Surveyor General, published in 1794, a note is entered across that portion of the Sunderbans immediately to the south of Backergunj to the effect that "this portion of the country has been deserted on account of the ravages of the Mughls," though the probabilities are that the raids themselves had long since ceased, as in 1638 during the administration of Islam Khan Mushaddi, Governor of Bengal, Matak Rai, one of the Mugh chiefs who held Chittagong on behalf of the Raja of Arracan, incurred the displeasure of his master and being apprehensive of punishment sought the protection of the Moghuls and proclaimed himself a vassal of Delhi. It was, however, not till 1666, or nearly 30 years later, that Chittagong actually

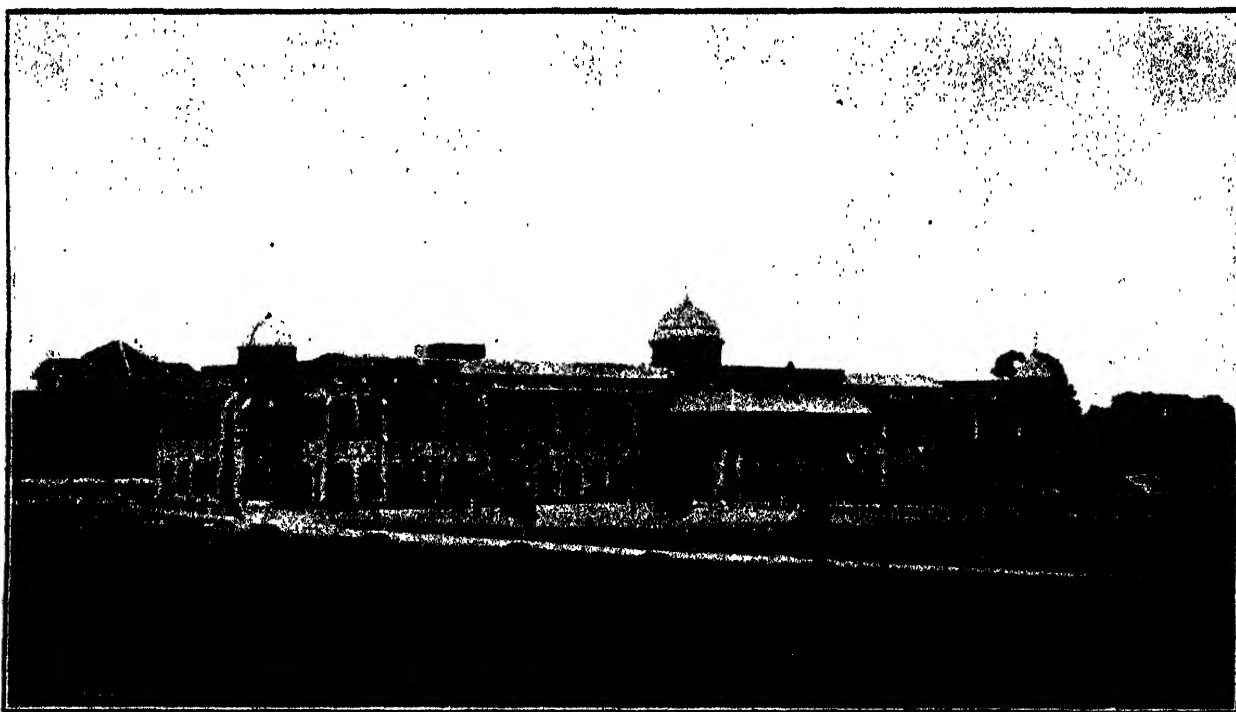


THE JETTY GARDEN CHINESE CHURCH

passed into the keeping of the Moghuls. In 1664, the Mugh excursions and depredations caused Nawab Shaista Khan, Governor of Bengal, to fit out a big expedition to secure the permanent conquest of Chittagong. A full and detailed account of this is to be found in Stewart's History of Bengal, pages 187 to 189 (1847 edition), and it was after the conquest that the town first received the name of Islamabad which means "Residence of the Faithful."

The first connection the English had with Chittagong was in 1685 when the East India Company was at war with the Emperor Aurungzeb. English trade had been much harassed by the exactions of the Moghul Governor of Bengal and disputes eventually terminated in hostilities. Admiral Nicholson, then in command of the Company's fleet, and the naval coadjutor of Agent

maintenance of five hundred European horse, two thousand European infantry and eight thousand sepoys which are to be entertained for the protection of the Royal dominions." This grant of Chittagong was renewed by Mir Jafar in 1763 when he was restored to the Governorship by the Company, and was confirmed by a *firman* from the Emperor Shah Alam, dated August the 12th, 1765. At the time of its cession, Chittagong town and the district comprised an area of some 2,987 square miles and yielded a total revenue of Rs. 3,23,135. A certain Mr. Verelst had previously been appointed to manage the Company's affairs as Chief of Chittagong, and he arrived there first on the 8th of November, 1760, from which date the district entered upon an era of peace such as it had not enjoyed for many a long year. The records of the



THE ASSAM-BENGAL RAILWAY STATION OFFICES.

Job Charnock, was directed to take ten ships of war, each carrying from 12 to 70 guns, and proceed to Chittagong, seize it and fortify it in order that it might be made a permanent settlement for the British. This, however, was never accomplished. In the year 1760, the Company deposed Mir Jafar Khan from the Governorship of Bengal, to which he had been appointed after the battle of Plassey 3 years before, and elevated his son-in-law, Mir Kassim Ali Khan, to the position, and under the 5th article of the treaty made with him in September 1760, Chittagong was ceded to the British by the Nawab. The *sanad* confirmatory of this grant is dated the 15th of October in the same year and sets forth that "the thana of Islamabad or Chittagong is granted to the English Company in part disbursement of their expenses and for the monthly

Revenue Board for the year 1782 disclose the fact that Chittagong was then regarded as an orderly and peaceable district which could be trusted to supply the Company's Resident at Tipperah with military assistance should he ever require it. The annexation to Burma of the independent kingdom of Arracan, which followed shortly after a war upon Arracan by the Burmese in 1784, led to hostile relations between the Burmese Court at Ava and the Chittagong authorities which continued more or less, although there was no overt act of actual hostility, up to 1793, when three insurgent chiefs who had been defeated by the Burmese king, fled from Arracan into the Company's territory of Chittagong, and the Burmese sent an army of 5,000 men across the river Naf after them. Negotiations followed, and the invaders only retired after receiving a

written assurance that if the fugitive chiefs were found guilty after an impartial investigation they would be surrendered to the king. This was subsequently done, and it is said that the act gave the Burmans a poor opinion of the strength of the British who, they imagined, were afraid to go to war with them. Life and property, however, in Burma do not appear to have been particularly safe in those days, especially in the conquered province of Arracan, and in the period that followed, large numbers of Mughls, taking advantage of the comparative safety offered in British territory, emigrated from Arracan and settled in and around Chittagong. This Mugh emigration, which assumed large proportions, was indirectly one of the causes of the first Burmese war, as the Burmese king regarded with alarm the rapid depletion of the population of the province and the consequent lowering of the revenue he exacted from it, which revenue was always levied to the last penny. The Viceroy of Arracan, acting under orders from the Court, which he represented, sent an army across the frontier to enforce the return of all Mugh emigrants to their homes, but the force eventually retired without having done anything as its presence was required in another direction to assist in a fierce tribal war. From this time onwards until February 1824, the date of the proclamation of the first Burmese war, there was much ill-feeling between the Company's authorities in Chittagong and the Arracan Viceroy, which was reflected among the villagers on both sides of the frontier where many petty acts of violence occurred from time to time for which both sides appear to have been equally to blame. In the beginning of May 1824 a Burmese army consisting of over eight thousand men under the orders of Maha Bandula (who, however, himself remained at Arracan) and commanded by four petty chiefs, crossed the river Nât and after a three-days battle near a place called Ramu annihilated a small detachment under a Captain Norton that endeavoured to stay its progress. Captain Norton himself was killed as also were five other British officers who were with him. The Burmese then proceeded to march on Chittagong which lay practically at their mercy, when the monsoon broke and speedily rendered the apologies for roads which existed and the intervening rivers impassable, so that they were obliged to halt, the opportunity being taken by the Company to strongly reinforce the slender garrison of Chittagong. The occupation of Rangoon by the British troops followed, and the Burmese army instead of continuing its march, retired hastily to the south, and this was the last time that the province suffered invasion.

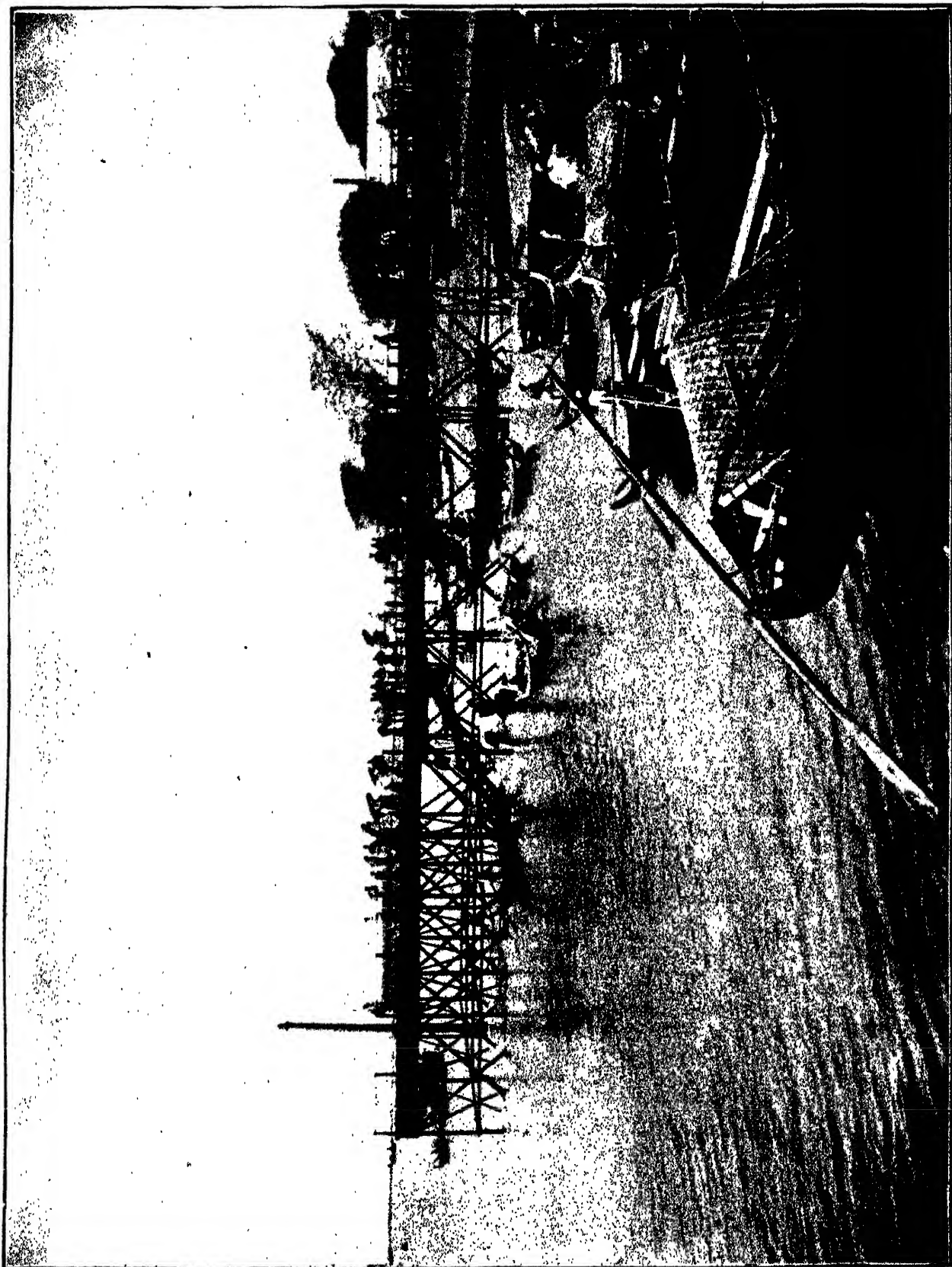
During the troublous times of the 1857 Mutiny, the native garrison of Chittagong was reduced until only the 2nd, 3rd and 4th Companies of the 34th regiment of Native Infantry were stationed there, and they were to all appearances loyal; in fact, they frequently petitioned to be allowed to take part in the British advance against the mutineers, a course which the inhabitants of the town urged the Government to allow as they had their own suspicions of the protestations of loyalty put forward. However, the three Companies were not moved, and eventually, at 11 P.M., on the 18th of November, they mutinied, broke open the

jail, released the prisoners, captured and sacked the Government Treasury and then marched out of the town in a perfectly orderly manner carrying their booty on three elephants and dragging in their train a large number of women. It is not recorded that any European was even assaulted by them, and only one native, a head-constable of police on guard at the prison at the time it was broken into, was killed. The mutineers marched out of British territory into the State of Hill Tipperah, but although followed by a detachment of British troops sent from Darca, they evaded these, and were eventually dispersed, after having endured immense privations, by the Sylhet Light Infantry. Of the treasure they had left Chittagong with some Rs. 35,100 was subsequently recovered from various sources.

We now come to the Chittagong of to-day, a very different place to what it once was. Before doing so, however, it will be as well to make some little mention of the Karnafuli river, on one bank of which Chittagong is situated and to notice some of the different races which populate the town.

The Karnafuli river rises in the north-east of the Chittagong Hill tracts and enters the Chittagong District from the east, eventually discharging its waters into the Bay of Bengal. It is to some extent navigable as far as Kasalang, 66 miles from the mouth, but the distance varies with the season of the year. The principal tributary, in fact, the only one of any note, is the Haldar, a stream which is navigable by country boats for some 24 miles throughout the year, and 36 in the height of the rainy season. Down both these, a large country boat traffic finds its way to Chittagong Port, and the two streams contribute materially to the flourishing state of trade in the surrounding district. The population is an exceedingly mixed one and the succession of Arracanese immigrations which we have already noticed have left their stamp on the present day inhabitants. There are 65 Hindu castes to be met with in the district itself, but Mahomedans form the great majority of the population, the descendants of the Moghul conquerors who settled in the district when it formed a unit of the Delhi Empire. It is, however, a fact worth recording, that in 1872, the then Collector reported that Mahomedanism had ceased to make any headway among the people, its place being taken by Buddhism. Anyone who has any acquaintance with the present Chittagong will be aware that this is equally true to-day. Buddhist priests are actively at work in Chittagong and they have a monastery of some dimensions there which forms their headquarters. They come from Burma and are unremitting in their zeal to obtain converts.

The Chittagong of the past was a sleepy, torpid, old-world town which only awoke to activity at the sounds of warfare or the cry of the roystering pirates who once made it their stronghold. The Chittagong of to-day is a bustling, thriving, growing centre of industry and of commercial and railway activity: a Chittagong of jetties and warehouse godowns and offices, and numerous other buildings, springing out of the dank, evil-smelling tropical verdure, and alongside numerous green scum-covered tanks which abound everywhere, and which are the home and the breeding place of the



View of new structure in Suisun Bay, California.

mosquito, the gad-fly and a hundred and one of the other insect pests which are to be found as denizens of most swampy places in India. Such is the Chittagong of to-day, a coming town.

In the centre of the town is the railway station, a fine red brick building approached by a semi-circular drive leading to a high archway entrance and surmounted at either end by stately white-domed minarets, the whole thrown into fine relief by the waving, deep-green background of palms, creepers, cacti and foliage of a like nature. The building has been designed on generous lines and with every thought for the future expansion of traffic. The booking offices and waiting halls are spacious and airy, while the clerks' offices look cool and inviting on the hottest of days. This is practically the starting point of the Assam-Bengal Railway, a line which, with its branches, runs for over 700 miles into the interior of the province, terminating at Tinsukia, a small station in the heart of Assam. From here, a branch line takes off to the Port, one and a half miles away, and all day and all night wagons heavily laden with rice from Burma, salt, tea factory machinery, etc., etc., are being hauled into Chittagong to be marshalled in the yards into trains for the north, the villages of the interior, and tea gardens of Assam and Cachar. The engines return again to the Port with empty wagons, or in due season, with heavy loads of jute bales or filled tea chests for oversea export. The Assam-Bengal Railway was first started in 1892, but was only completed as lately as 1904, when the line was formally opened by Lord Curzon, then Viceroy of India, the event being made the occasion of some ceremony. Down at the Port itself there is a Chittagong that even the most superficial observer can see has come to remain, develop and grow. Its management is in the hands of the Assam-Bengal Railway Company, who have a scheme well in hand for building eight jetties to accommodate ocean liners at all seasons. Of these eight jetties, three are already in existence and two in course of construction, while it is said that there will be no delay in building the remaining three. It may be mentioned in passing, in connection with the creation of the modern Port, that in 1905, an inspection was made of it at the direction of the Government of Bengal, Marine Department, by Messrs. Dumayne and Palmer, Vice-Chairman and Chief Engineer of the Calcutta Port Commission, and these gentlemen subsequently formulated a special report as to the requirements of the Port and the design of the jetties to be constructed. At that time only two jetties were in existence, though the first proposal for a third was made as far back as the year 1902. The arrangements for discharging and loading vessels are thoroughly up to date, the most modern type of hydraulic cranes having been provided, and there is a complete electrical installation which permits of night work being undertaken. To each jetty there are two sheds, long structures of galvanized iron, generally filled with tea chests, rice bags, or jute bales. The railway lines are laid alongside the sheds to facilitate easy loading and the yards are capable of accommodating a large number of trains daily. Higher up the river bank is the installation of the Burma Oil Company, and, beyond, the mat-walled godowns and stores of many

large trading firms, both European and Native, whose names are household words in the Indian business world, and whose Chittagong houses are becoming branches of growing importance as the magnitude and scope of their business extends. All this spells prosperity which is obviously present.

Wherever you go, there is babel and a confusion of tongues. Standing on the jetties one may hear the broad Scotch of the ship's officer or ship's engineer, or the Cockney twang of his fireman, intermingled with the shrill cries of the brown skinned lascars and dock workmen as they go noisily about the day's toil. Burmans attired in flaming coloured silks with the handle of the wicked looking kris peeping out from the folds around the loins, gravely transact their business as importers of rice and timber from Rangoon, Moulmein or Akyab in Arracan, side by side with scarcely less startlingly attired, but more energetic little men from Malaysia with an occasional Chinaman. The Jew, the Burman, the Malay, the Chinaman, the Punjabee and the Bengalee can all be seen at Chittagong Port, fraternizing over business or arguing among themselves, or with the farther afield wanderer from Assam and the far away Nepaulese hinterland. In respect of fire, the Port has been unfortunate, as a jetty with its sheds was burnt down in November, 1906, and further fires have taken place there on two other occasions.

Apart from the Port through which the whole of the import and export trade of the Province passes, the inhabitants of the town and surrounding villages are largely engaged in the fishing industry which is the principal occupation of a large number of people. Not only is fish the staple article of their diet, after rice, of course, but it is available in such quantities that a flourishing drying and curing industry has sprung up, the cured article being exported to Calcutta and also supplied for the consumption of the inhabitants of the less favourably situated villages further in the interior. There are numerous varieties of fish in the sea within measurable distance of the coast and in the estuaries and tidal rivers near the coast and in the many rivers and tanks which the province possesses. Of these, the principal found in the sea are Shapha, Bacha, Bain (eel), Bhola, Buka, Ch'il (kitefish), Chluna, Chringu (shrimps and prawns), Hilsa or Elsa, Kharsula, Bhетки, Tapsi, etc., etc.; in the rivers Air, Bata, Chiriny, Pabda, Selash and Guliá; in the tanks, Bailá, Bhindá, Boal, Chitál, Cheng, Korsu, Magur, Maluapuntlu, Gajal and Katlá. The fish industry has recently attracted European enterprise and some two or three years ago a number of gentlemen floated a Company known as the Chittagong Fisheries Syndicate, the object of which was to trawl for sea-fish, a portion of the catch to be offered for local consumption on the Chittagong market, the remainder to be dried and exported. Circumstances are favourable to the operations of the syndicate, though up to the time of writing very little actually appears to have been accomplished.

The European population of Chittagong is not a large one, being divided almost equally between railway employees, Government officials and business men, but it is appreciably increasing as the town and port expand, and there is every prospect of it continuing to do so.

The situation of the bungalows of the European residents gives the new comer a somewhat curious impression at first, as they are all isolated on the summits of little hillocks, each hillock having one or two bungalows to itself. This has been done so that the occupants may take every possible advantage of the breeze which blows from the sea and affords a welcome relief from the heat in the summer, and in order that they may escape, if possible, from the malarial fever which haunts the flats, and from the bad odours inseparable from the curing of fish which is carried on extensively in the bazaars. Even as Indian plain stations go, Chittagong is not healthy, and the dense tropical jungle which surrounds it in places, and the numerous tanks filled with stagnant, bad-smelling water which are dotted here and there all over the town, no doubt account for the large amount of fever that is prevalent during certain seasons of the year. As, however, the jungle is felled and the tanks filled in to admit of the expansion of the town, the present abnormal amount of fever will doubtless be reduced within reasonable limits.

Chittagong still bears many traces of its one time Arracanese and Portuguese inhabitants. There is in the middle of the town a ruined Portuguese fort which was once indisputably the home of the pirates who harried Bengal and the Moghul fleets, while a similar collection of ruins is to be found some eight or nine miles away from the town in the vicinity of the sea coast beyond the adjacent settlement of Pahartali. In this latter place tradition among the natives asserts that a vast quantity of treasure is buried, the accumulated wealth of the old marauders who, being compelled to leave in a hurry, buried their booty intending to return for it on some future occasion which, the tradition asserts, they never did, and it lies there yet waiting to be found. Apart from this one legend, tales of buried treasure in and around Chittagong are common enough in the bazaars, and although attempts have been made from time to time to test the accuracy of these and to recover some of the fabulous wealth captured from the Afghans and the Moghuls which is supposed to have been hidden away in the ground, nothing of any value has ever been reported as having been found, and Europeans generally set the whole thing down as bazaar chatter. Many of the old

Portuguese houses still stand and are yet inhabited, while at Bandel, a suburb of Chittagong, which was in those days, and is still, the centre of Roman Catholic missionary effort, a number of interesting manuscripts written by the old missionaries in Portuguese and French are still extant and in a well-preserved condition despite their great age. The translation of these and their publication should add to the literary wealth of the country, and it would no doubt be found that much fresh light would be thrown on obscure periods of past history. Possibly this may be done some day!

The town, as the capital of the District, is the seat of a Commissioner, a District Magistrate and a District and Sessions Judge, the latter holding a criminal court at the usual periodical intervals. It has also, in the course of construction, a stately residence in which the Lieutenant-Governor of Eastern Bengal and Assam will spend one or two of the winter months every year, though the actual winter seat of his administration is Dacca, the capital of the Province, and in summer, Shillong, a town in the Khasi Hills. There are fine Law Courts situated on the summit of a steep eminence known as Fairy Hill, from which a magnificent view of the surrounding country is obtainable. In particular, the course of the Karnafuli river can be descried for miles.

There can be no doubt that, its excellent and commanding geographical situation apart, Chittagong owes a large share of its prosperity to the Assam-Bengal Railway Company, which controls the Port and practically the whole of the inland trade. Floated as a Company in London early in 1892 with a capital of £1,500,000 carrying interest first at 3½ then at 3 per cent. guaranteed by the Secretary of State for India, the capital expenditure on the Port and line amounted up to the end of the year 1906 to the sum of Rs. 13,25,20,704, all deficits being made up by the Government. The total open mileage on the 1st of January 1907 was 775·28 miles divided into, main line (Chittagong to Tinsukia) 576·61 miles, branches 198·67 miles. For many years the expenses of the Company greatly exceeded its receipts, but latterly these have increased; and although working expenses are still very high, they are amply covered by receipts, the proportion for the year 1906 being 89·86 per cent.



The Port of Rangoon.

ALTHOUGH the Rangoon of to-day has practically been created since 1852, in April of which year a British force captured the city on the outbreak of the second Anglo-Burmese War, the British connexion with the place dates back to 1790. Up to this time Rangoon had been little more than a group of hovels, just above the level of low tide, and the district had been the scene of incessant struggles between the Burmese and Peguans. Local legends, said to be confirmed by Tamil and Telugu traditions, state that in some unknown cen-

tered as historical is given in the Singhalese *Mahawanso* which mentions the mission of Sono and Uttaro, sent by the third Buddhist Council (244 B. C.) to Suvannabhumi, to spread the Buddhist faith. It seems clear that the delta of the Irrawaddy did not escape from the contest between the followers of the Brahmanical and Buddhist faiths, which lasted for hundreds of years, until the end of the 8th century when the victory eventually passed to the one body in India, and to the other in Burma.



THE IRRAWADDY RIVER—RANGOON.

tury before Christ the inhabitants of Telingana, or Northern Madras, colonised the coast of Burma, finding there a Mun population, by which designation the Peguans still call themselves, whilst Telingana appears in the modern word Talaing. According to Hunter, the Palm-leaf Records assert that the Shwe-Dagon Pagoda at Rangoon was founded by two brothers, who had met and conversed with Gautama Buddha in India. But the first notice of the country that can be consi-

In the wars between the sovereigns of Burma and Pegu, Rangoon, or as it was then called, Dagon, frequently changed hands. Punnarika, who reigned in Pegu from 746 to 761, is said to have refounded the town, and named it Aramana, and it was not until later on that it regained its original name of Dagon. In 1753 Alompra drove out the Talaing garrison of Ava, which was then the Burmese capital, and he eventually conquered the Talaing dominions. One of his first

WAS SALAR JUN-

acts was to repair the great pagoda at Dagon: he also entirely rebuilt the town, which had by that time lost all its importance, although what are now suburbs of the town, Dala and Syriam, evidently flourished to

city was again captured by the British forces, and this time they held it. With the permanent occupation of the city commenced its marvellous development under British rule, and as

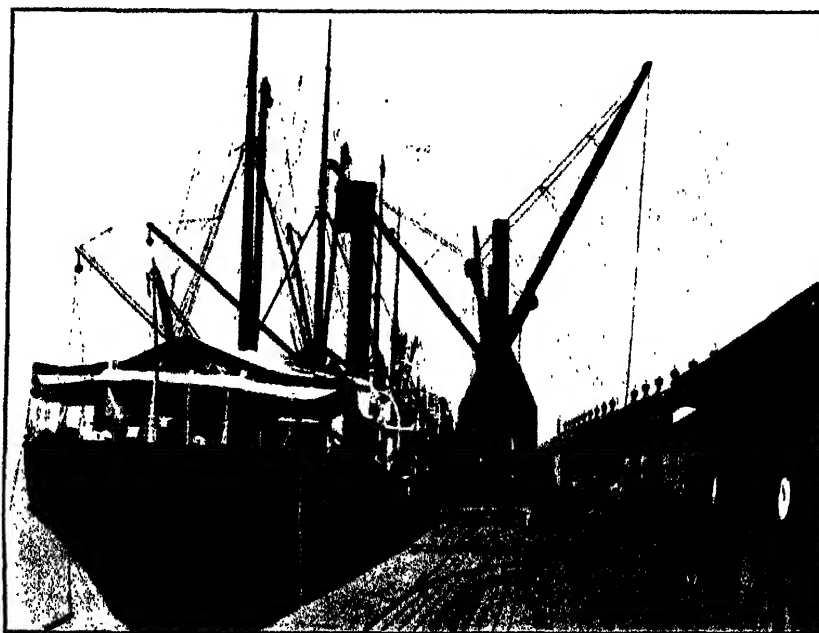
about five-sixths of the Maritime trade of Burma passes through Rangoon, the history of the commerce of the Province is very little more than a history of the progress of this single port.

The first commercial treaty entered into between the British Government and the Court of Ava was signed in 1826, after Rangoon had been given back to the Burmese by the treaty of Yandabo. At this time Rangoon was practically the only port of foreign trade in the Burmese dominions. Its situation was extremely convenient for commercial purposes—within twenty miles of the open sea and commanding the navigation of the Irrawaddy, which extended to Ava, the capital, a distance of about 500 miles. At this time, however, the place itself was not of an imposing nature, and according to contemporaneous accounts the town and suburbs extended lengthwise about one mile along the bank of the river, and was about three-



SULE PAGODA OLD WHARF.

some extent, judging from the frequent mention that is made of them in the records of the period. After rebuilding the town, Alompra gave it the name of Yan Kon ('the end of the war') or Rangoon, and made it the seat of a Viceroy. From that time until 1790, when the British first appeared on the scene, incessant struggles between the Burmans and Peguans for the possession of the place made the history of Rangoon, and the Burmans were in possession in 1790 when the East India Company obtained leave to establish a factory, over which the British colours were hoisted. A few years later trouble arose in Arakan and Chittagong between the East India Company and the Burmese Government, and Captain Symes was sent on an embassy to Ava, one of the results of his mission being the appointment of a British Resident at Rangoon in 1798. In the first Burmese War in 1824 Rangoon was captured by the British, but it was subsequently evacuated in accordance with the terms of the Treaty of Yandabo. On the outbreak of the second Burmese War in 1852 the



SULE PAGODA NEW WHARF.

quarters of a mile in depth, the houses being very unequally scattered over this area. The population was estimated at 18,000. As regards commerce, a report written about the time the first commercial treaty was

signed says that a considerable intercourse was carried on between the Burmese and Chinese dominions by an annual caravan, of which the merchants were all Chinese. The imports from China consisted of manufactured articles, the chief export from Burma being cotton wool. The trade with "foreign countries," seaward, was carried on with the ports of Chittagong, Dacca, and Calcutta. There was also a certain amount of commercial intercourse with Madras and Masulipatam on the Coromandel Coast, the Nicobar Islands, Penang, and the Persian and Arabian Gulfs. The largest trade, even in those early days, was with Calcutta, owing to the large consumption of teak timber in the capital of India, and the facility with which she could supply the demand of the Burmese for Indian and British cotton goods. The chief exports from Rangoon were teakwood, catechu, stick lac, beeswax, elephants' teeth and tusks, raw cotton, gold, silver, rubies, sapphires, and horses. By this latter is, of course, meant the small, hardy pony of the country, formerly so much esteemed in India. By far the most important of these commodities was the teak timber. The annual quantity of this wood exported was said to be equal to 7,500 full-sized trees. The teak forests of Pegu were by far the most abundant in India. The wood was nowhere to be found in the low alluvial lands, to which the tide reached, but abounded in the high lands beyond its influence, and was indeed very generally disseminated throughout the Burmese dominions. The principal imports into Burma from India and Great Britain were cotton piece-goods and British woollens. There was also a considerable trade in iron, steel, quicksilver, copper, opium, spirits, tobacco, glassware, gunpowder, and a variety of other articles. The Burmese had few cotton manufactures of their own, and appear, from very early times, to have been furnished with the principal part of their supply from the Madras coast. To these were afterwards added the cheaper fabrics of Bengal, until both were in a great measure superseded by British manufactures, the use of which spread very rapidly once trade was opened. In 1826-27, the earliest period for which we have been able to discover authentic returns, the total imports and exports of the Port of Rangoon were estimated each at £300,000 or a total seaborne trade of £600,000 annually.

It is curious to note that in these early statistics, which were doubtless very incomplete and were not official, no mention is made of rice, the staple food grain of the Province and, for years past, its chief article of export. To an old circular, issued in 1858, by Messrs. Gladstone, Wyllie & Co. of Calcutta, we are indebted for the information that in that year the exports of rice from the Port of Rangoon had attained considerable dimensions, and were showing a very rapid increase. So much so, indeed, that they sprang up from nil in 1853 to the large total of 112,561 tons in 1858. This increase attracted marked attention at the time as affording a partial indication of the almost boundless resources of the rich Province of Pegu.

The history of Rangoon, so far as its commercial importance is concerned, may be divided into two parts, *i.e.*, the periods previous to and following the annexation of Upper Burma by the British. Before the

annexation the commercial prosperity of British Burma had more than kept pace with its rapidly increasing population. From 1855, the external trade of the province had shown a constantly progressive increase, and had risen from £5,000,000 in that year to £21,000,000 in 1881-82. These figures were made up as follows:—Value of seaborne trade in 1881-82—imports, £8,077,000; exports, £9,288,000. Value of land-frontier trade—imports, £2,018,000; exports, £1,765,000. Total value, imports, £10,095,000; exports, £11,053,000, aggregating a total of £21,148,000. Of this, Rangoon absorbed about 90 per cent. of the whole of the foreign import trade, and about 60 per cent. of the foreign export trade. It was the rice produce and the rice exports that had made and maintained the prosperity of British Burma up to that time, and this most important industry was carried on by the rice-mills of Rangoon and its suburbs, which freed the rice from its husk and prepared it for the European, Chinese, and American markets. It was the enterprise and the skill of the Rangoon rice merchants that gave such an impetus to the trade that Burmese rice was sent direct from the mills to England, Italy, Austria, Germany, Holland, France, Brazil, the Straits, China, and Mauritius; and a report issued about 1880 mentioned that Burmese rice had reached Iceland, and that in Northern Germany the Burmese grain was coming into use as an article of food among the poorer classes. At this time there was but one line of railway working in the province, although another was approaching completion, the history of which will be found in the article on Burma Railways. The whole of the land-frontier trade was conducted by the Irrawaddy route, and nearly all the traffic was carried by the steamers of the Irrawaddy Flotilla Company. This Company which had done so much for the development of the country, and was of such material assistance in the last Burmese War, began business in 1868 by taking over two or three old Government steamers and flats. Their fleet was gradually increased until at the outbreak of the last war they possessed about 50 steamers, a proportionate number of flats, and carried yearly between British and Independent Burma goods to the value of upwards of four millions sterling, besides about 50 to 60,000 passengers—over and above the large traffic they did in purely British waters. One or two steamers belonging to the King of Burma also plied on the river but got but little freight, although the trade to Mandalay was entirely in the hands of Chinese and Burmese merchants.

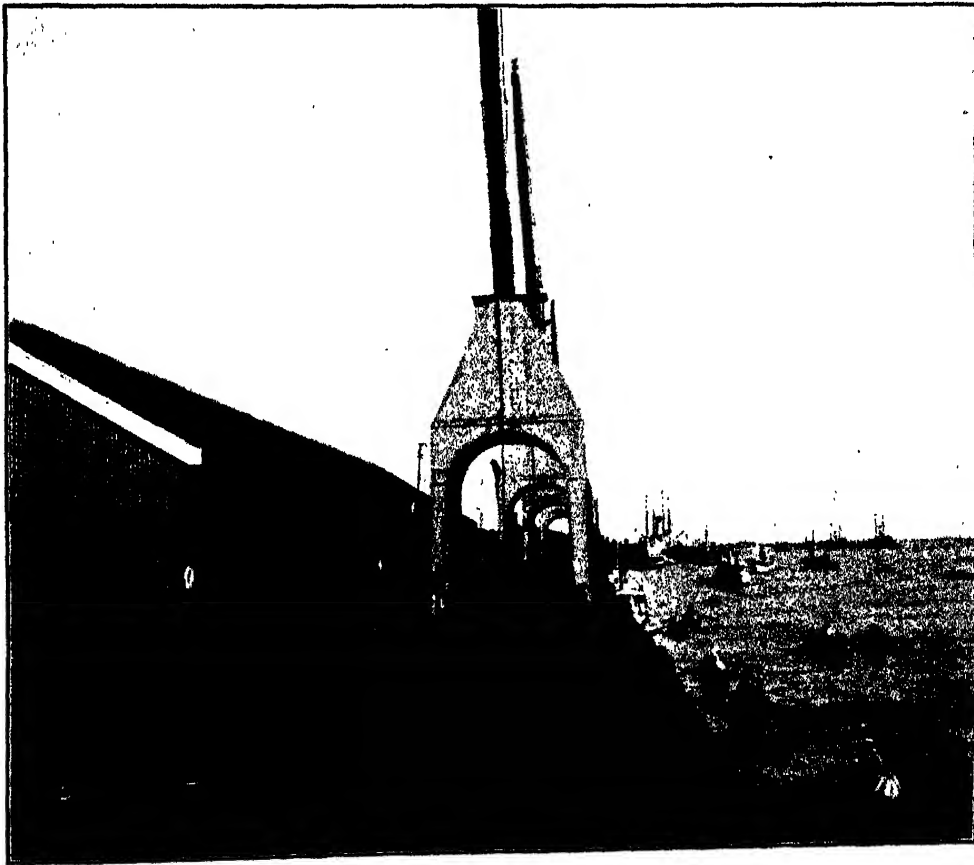
Meanwhile, matters in Upper, or Independent Burma, had been going from bad to worse. While this part of the province had been under the rule of King Mindoon things had worked fairly smoothly, and the treaty of 1867 which provided for the free intercourse of trade and the establishment of regular diplomatic relations, had been, on the whole, satisfactorily adhered to. But when in 1878 King Theebaw ascended the throne on the death of his father, the government of the country became rapidly bad. Control over many of the outlying districts was lost, and the elements of disorder on the British frontier were a standing menace to the peace of the country and to its commercial progress. Matters were brought to a crisis towards the end of



BARR STREET PASSENGER JETTY.

1885, when the Burmese Government imposed a fine of £230,000 on the Bombay-Burma Trading Corporation, and refused to comply with a suggestion of the Indian Government that the cause of complaint should be investigated by an impartial arbitration. This imposition of an impossible fine on a British mercantile firm which had for years been engaged in the export of timber from the great teak forests of the King's dominions, coupled with the threat of the confiscation of all their rights and property in case of non-payment, was the direct cause of the Burmese War of 1885, which resulted in the dethronement of the King and the annexation of his dominions.

progress of the country seemed to be the last things considered. It is difficult to account for this inaction. It certainly was not due to lack of money. The real fact of the matter was that successive administrations had been running the country on economical lines, with the result that while the budgets showed a surplus, the development of the resources of the country was utterly neglected, and the opening out of land-locked tracts by means of roads and railways was at a standstill. All this had its due effect on the commerce of the Port of Rangoon which, although it had, even at the time of the annexation, attained large dimensions, was later, under more settled conditions, to increase by leaps and



LATTER STREET NEW WHARF

No more remarkable story than that of the pacification and progress of Burma can be told of any portion of the Indian Empire, and there can hardly be a more striking proof that there has been no falling off in the qualities necessary for the wise and vigorous government of a great dependency than the manner in which a large portion of this province has been transformed from a condition in which there was no tolerable government, and no safety for life or property, into a peaceful and prosperous country. The pacification of Upper Burma was not, of course, effected all at once, and the conquest of the country was followed by a period of stagnation, in which the development and

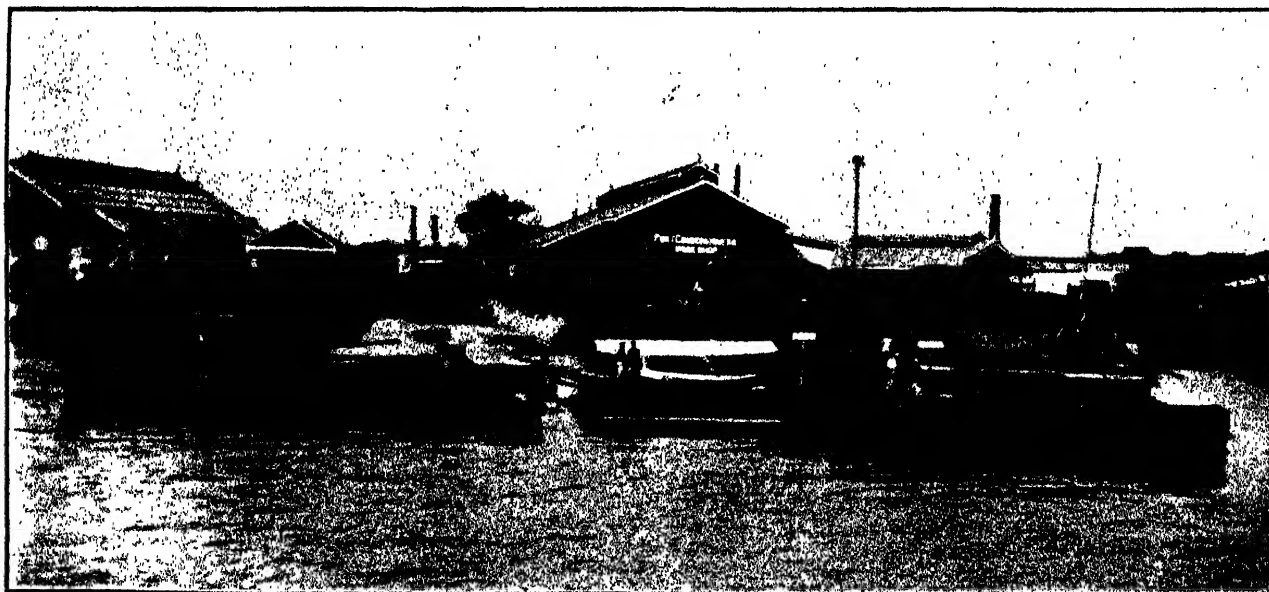
bounds. Before the war, the whole of the trade of the district centred in Rangoon City, and communication was carried on mainly by numerous tidal creeks. There were 112 miles of made road in the district, the principal being that from Rangoon City towards Prome, now taken up by the Irrawaddy Valley State Railway. Rangoon itself was already a city of considerable importance, with an elective system and municipal government. Then, as now, the Rangoon Municipality were a progressive body, and with a very limited income at their disposal (£160,802 in 1883-84); they had already erected five markets, supplied the town with good water from the Royal Lakes, carried out a scheme

for an improved water-supply, granted a concession for the laying down of steam tramways, and had, altogether, proved themselves an energetic and public spirited body. The Strand bank, with its wharves and moorings, was at the time under the management of a special body. Although the abolition at the close of 1881-82 of most of the import duties, reduced the customs revenue on imports, the large increase in the exports of rice immediately made up the deficiency. In 1883-84, 939 vessels of 711,513 tons entered the Port, and 893 vessels of 696,349 tons cleared.

It was not until the beginning of the present century, however, that the old policy of *laissez-faire* received its deathblow, and that the Government of Burma turned their attention to improvements in the means of communication and additional facilities for trade. The new era of activity set in with the advent of Sir Hugh Barnes as Lieutenant-Governor, and one of his first official acts on his assumption of office was to inspect the Port of Rangoon, and of such of the new works as had then been commenced on the river foreshore. He also studied on the spot the necessity for other works that had already been reported on and were then awaiting the sanction of the Government of India. As a result, there are works now in progress at Rangoon that will, when finished, go far towards placing the Burmese capital in the front rank of the ports of the Empire. In another direction, by his practical interest in its affairs, Sir Hugh Barnes laid Rangoon under an obligation; for when he took over charge, the affairs of the Port were governed by an Act framed twenty-four years previously. It was rightly felt that this Act, suited to the needs of the Port in 1879, when it was framed, was more a hindrance than a help in these days of rapid progress. A city, the population of which has increased from 100,000 to 350,000 within the last twenty-five years, had surely an overwhelming claim to the assistance of the Government in the promotion of its commerce, and the new

Act, which was passed in 1905, is framed not only for present needs, but for the needs of many years to come. It gave the Port Commissioners powers which the old body never possessed, and it provided for the representation on the Port Commission of both the Chamber of Commerce and the Trades Association, privileges those bodies had not hitherto enjoyed.

The Port Trust constituted under this Act, called the Rangoon Port Act, 1905, also supervises the buoying and lighting of the river, and provides and maintains wharf and warehouse accommodation—for Rangoon has no docks. The greater part of the city lies along the left or northern bank of the river at its point of junction with the Pegu and Pazundaung streams, 21 miles from the sea. Here are also the populous main suburbs of Kemendine and Pazundaung. On the south bank of the river are the suburbs of Dala, Kamakasit, Kanaungto, and Seikgyi, a narrow strip of dockyard premises and native huts on the fringe of a vast expanse of typical delta paddy fields. These mark the southern limit of the city. To the west the boundary is the western bank of the Hlaing; to the east are the Pazundaung and Pegu streams, and to the north the municipal boundary runs through the slightly undulating wooded country into which the European quarter is gradually spreading. Behind the array of wharves and warehouses that line the northern bank are the buildings of the mercantile and business quarter of the city, and thence the ground slopes upwards through a wooded cantonment to the foot of the slight eminence from which the great golden Shwe Dagon Pagoda looks down upon the town and harbour. Under the building programme mapped out in 1904 the city has quite recently been provided with many public buildings, in addition to those she already possessed, and one of the most recent and useful additions has been the new General Hospital, the foundation-stone of which was laid in 1905. The question of this hospital had been



PORT COMMISSIONERS' WORKSHOPS AND SLIPS.

under consideration for more than thirteen years, but it was only in 1905 that the scheme was sanctioned by the Government of India. At the same time a special grant was made for the foundation of a Museum, and the new Chief Court buildings, after hanging fire for years, were proceeded with, and among other matters appertaining to the improvement of Rangoon, that were only set in motion, after a long period of incubation, at about this time were the arrangements for electric lighting and electric tramways, and the removal from the sites formerly occupied of the Lunatic Asylum and the Jail. These latter changes placed at the disposal of the Government one of the finest sites in the city, well suited for the extension of the Civil Station. Other prominent buildings which have been added within recent years are the new Government House to the north-west of the Cantonment area, the Secretariat buildings to the east of the business quarter, the District Court buildings facing the river in the centre of the city, the new Roman Catholic Cathedral and the Jubilee Hall.

Rangoon City now comprises the Port, the Municipality and the Cantonment, and it is the terminus of all the railway lines in the Province. A full account of the Railways of Burma, on which the further development of the country so much depends, will be found elsewhere in this volume, but since that article was written, and after years of persistent agitation by the mercantile community of Rangoon, supported by successive heads of the Province, the Southern Shan States Railway has at last received the sanction of the Secretary of State. It has been an up-hill fight on the part of successive Lieutenant-Governors who have steadily advocated the claims of that huge region known as the Southern Shan States to efficient communication with the outer world, but at last the all-important official sanction has been obtained. Meanwhile, with the continuous increase in mileage opened, the Burma Railways, like other lines, have found that their general workshops are not big enough to meet the increasing demands upon them. These are at present located at Insein, a suburb of Rangoon, and it was proposed some time ago to remove the carriage and waggon departments of the workshops to Yamethin, in Upper Burma. There were, however, difficulties connected with the water-supply at that station, so it was decided in August, 1909, to build new workshops near Mandalay, and at the same time to extend and improve the locomotive works at Rangoon (Insein).

As before stated, the great bulk of the maritime trade of Burma passes through Rangoon, and a history of the commerce of the Province is little more than a history of this single port. Its trade in recent years has increased with great rapidity. In 1856-57 the value aggregated only one crore. By 1881-82 this figure had risen to 11 crores, and by 1891-92 to 19 crores. In 1901-02, in spite of a more stringent tariff than in the past, it had mounted up to more than 26 crores, while 1903-04 showed a further advance of nearly 6 crores on the figures of the previous year. Under practically all the main heads of import and export the growth has been steady. The staple produce of the country is rice, and the value of the exports in this single commodity amounted in 1901-02 to 9½ crores, compared with 6

crores in 1891-92, and 3½ crores in 1881-82. Next in importance comes teak timber, with a growth in value from 22 lakhs in 1881-82 to 91 lakhs in 1901-02. Next in order comes oil, and the development of the Burma oil fields affords material for one of the most interesting chapters in the history of recent progress. The export value of the oil, which in 1881-82 was only 2 lakhs of rupees, had risen to 81 lakhs in 1901-02. The only item in the exports that has shown a falling off in recent years is Cutch. The following table shows in thousands of rupees, the actual figures of imports and exports (excluding Government stores and treasure) for the three years selected, and for 1903-04:—

	1881-82	1891-92.	1901-02.	1903 04.
Imports	5,66,96	10,13,58	11,16,69	14,24,68
Exports	5,65,83	9,04,20	14,66,17	17,55,56
Total	11,32,79	19,17,78	25,82,86	31,79,24

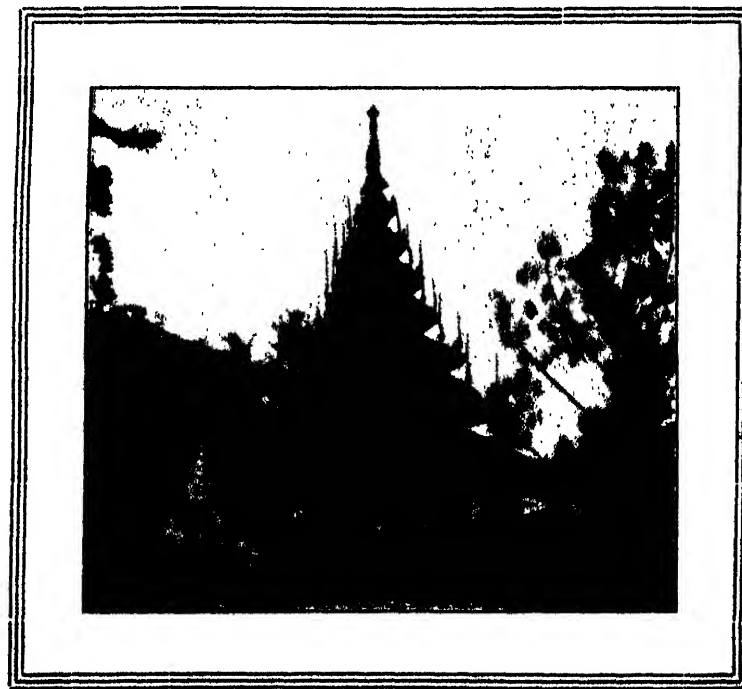
During the same period the customs revenue rose from 44 lakhs in 1881-82 to 60 lakhs in 1891-92, to 91 lakhs in 1901-02, and finally to over a crore in 1903-04. Owing to the increasing employment of vessels of large burden, the number of ocean-going steamers entering the Port has not risen to an extent proportionate to the growth in trade and tonnage, the figures for 1881-82 being 931 vessels with an aggregate capacity of 655,000 tons, while those for 1903-04 were 1,190 vessels with a capacity of 2,005,000 tons.

In August 1909 the Port Commissioners of Rangoon were authorised by Government to raise a four per cent. loan of thirty-two lakhs of rupees, repayable in thirty years, to meet the cost of river training and other works of improvement in the Port. The works now in progress, which only recently (July 1909) received the sanction of the Government of India, are those recommended by the Chairman and Chief Engineer of the Port Trust so long ago as 1903. Previous to this, a Committee of experts had been appointed to report on the measures that should be taken to regulate the action of the river along the loreshore opposite the town of Rangoon and to prevent further erosion of the river bank. Their report set forth the leading physical characteristics of the river, and pointed out that with regard to works that are feasible, it should be borne in mind that the river is a great tidal basin, from half a mile to a mile wide, discharging from 300,000 to 500,000 cubic feet per second, with a maximum velocity of 5 feet per second and maximum depth of 70 feet below low water, with 20 feet tides, and that therefore it would be safe to assume that the scour round noses of spurs or unfinished embankments would result in depths of 100 feet below high water having to be worked in, involving the use of vast quantities of material and a consequent prohibitive expenditure. The matter was then allowed to drop until in 1900, the Government pointed out that nothing was being done to give effect to certain recommendations that had been made by the Committee with a view to preventing further erosion. In 1903 Mr. G. C. Buchanan, Chairman and Chief Engineer to the Port Commissioners, submitted his report in which he pointed out that the

only effectual way of dealing with the matter was to carry out certain works that would, in his opinion, bring back the south bank of the river to approximately its old line of frontage. If this were done, he urged, the sandbanks that had formed on the town side of the river would be dispersed, cross currents stopped, and another length of river with deep water would be made available for the use of shipping. The new line of frontage involved the removal of a projection known as Mower's Point on the south bank of the river, and he preferred the removal of this projection to an alternative scheme for strengthening the Point and the ground behind, so as to prevent the river cutting its way through. A continuous line of permeable walling, along the Southern bank similar in construction to that adopted on the large American rivers, was advocated, the length of the wall to be about 14,000 feet, the average depth of water along the line being about 25 feet at low

water, ordinary spring tides. Such in brief were the proposals finally submitted in 1903, and which six years later received the sanction of the Government of India.

Meanwhile, however, a large number of minor improvements have been carried out, and the Port Trust, since its constitution has been by no means idle. In connexion with works completed within the past few years the Port Trust obtained sanction towards the end of 1907 to notify their right to prohibit the landing or shipping of merchandise from or for sea-going vessels, except at their Jetties within specified limits, subject to special exemption. Against this action of the Port Trust the Chamber of Commerce protested, and also by owners and occupiers of land on the foreshore. A Committee of Enquiry is now engaged in investigating the questions at issue over foreshore rights.



BIOGRAPHICAL SECTION.

HIS EXCELLENCY SIR ARTHUR LAWLEY, K.C.M.G., G.C.I.E.,

Governor of Madras.

SIR ARTHUR LAWLEY, who succeeded Lord Amptill in the Governorship of the Madras Presidency in 1906, was born in November 1860, and is the fourth son of the 2nd Baron Wenlock. The third Lord Wenlock and present holder of the title is the eldest brother of Sir Arthur Lawley, and was Governor of Madras from 1891 to 1896. The heir-presumptive to the title is Colonel the Hon. Richard Thompson Lawley, C.B., brother of the present Governor of Madras, who was born in 1856; and another brother, born in 1857, the Rev. Hon. Algernon George Lawley, M.A., is a Prebendary in St. Paul's Cathedral, London, and Commissary for the Bishop of Pretoria and the Archbishop of Brisbane.

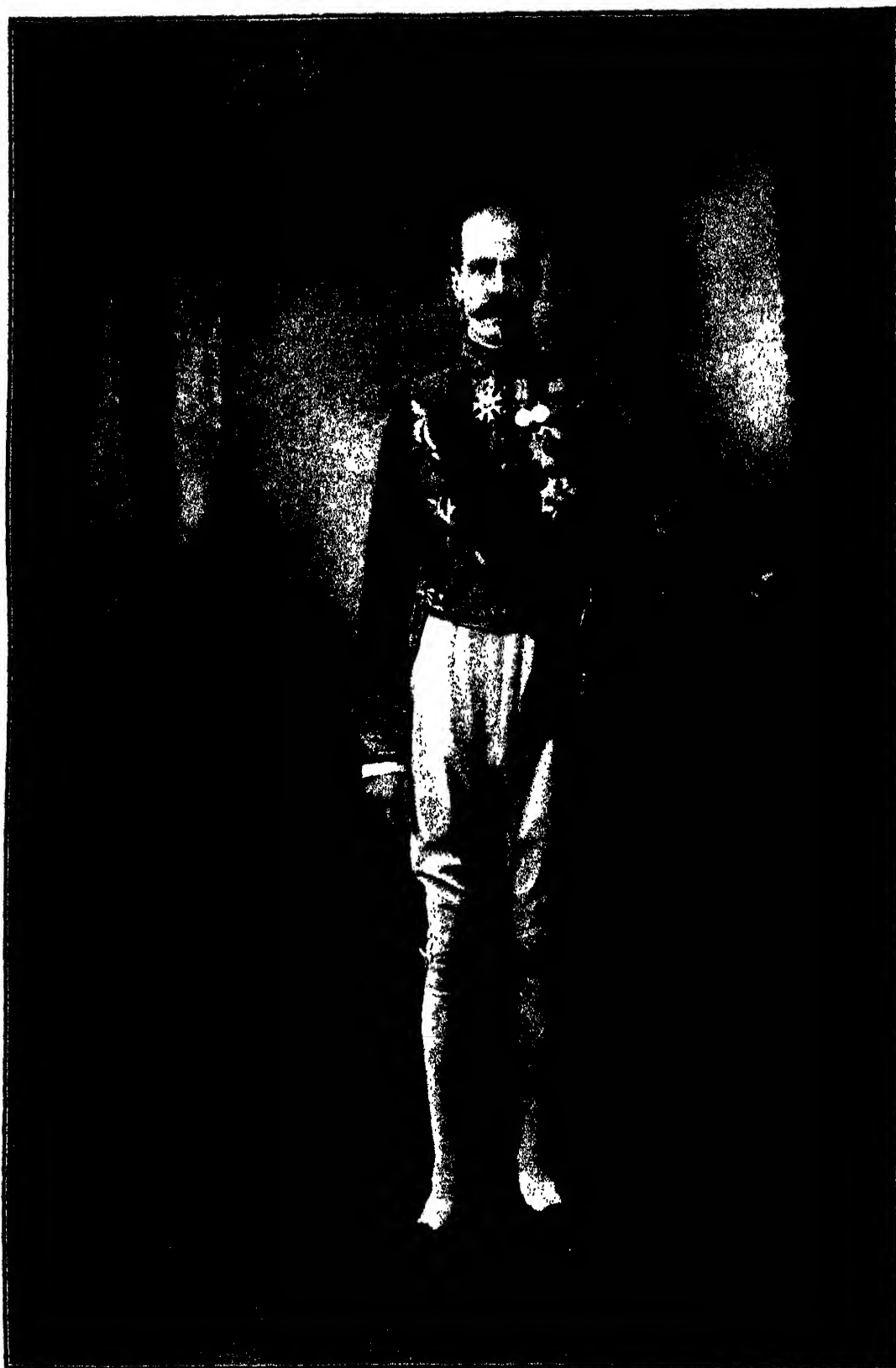
Sir Arthur Lawley joined the 10th Hussars at Lucknow in 1882. He served with that Regiment in the Suakin Campaign, 1884, but retired with the rank of Captain in 1892 to become Private Secretary to his uncle, the Duke of Westminster, a post which he held four years. In 1896, he accompanied Earl Grey (now Governor-General of Canada) to Rhodesia, and in 1893 he was appointed Administrator of Matabeleland, under the British South Africa Company, at a time when the political and industrial development of Southern Rhodesia was proceeding apace. Then came the South African War of 1899-1902, when the threatened Boer irruptions into Rhodesia for a time stopped the flood of development. During this stormy period, Sir Arthur continued at his post, and the loyalty and steadiness of the natives of the districts of Matabeleland throughout the Transvaal war was one of the remarkable features of the campaign. At the end of 1900 when the brunt of the fighting was over, Sir Arthur Lawley was appointed Governor of Western Australia, a post which he held for one year only (1901-1902), being recalled to South Africa, as Lieutenant-Governor of the Transvaal, as soon as the terms of surrender were signed.

The Colony was at that time in a condition of absolute chaos. The restoration of the people to their homes, the putting together of the whole of the machinery of Government, the organization of every department of the Civil Service, the revival of the Agricultural and Mining Industries, were some of the problems to be faced. The assumption, moreover, by the Transvaal—a colony of only 300 000 white people—of the responsibility to pay the interest on the guaranteed loan of 35 millions was a heavy burden. One of the questions of the hour was that of the supply of unskilled labour for the mines. A thoroughly representative commission was appointed to investigate the question, it was shown conclusively, and after the most ex-

haustive enquiry, that the South African labour market was quite inadequate to meet the demands for labour, whether in the mines or on the farms. The new Lieutenant-Governor thereupon became a strong advocate for the importation of Chinese labour. He was convinced that the question of the development of the mining industry was a tremendous issue, not limited to the shareholders in London, men on the Rand, or capitalists, but a factor in the wealth of the world; and that the development of the industry depended upon the solution of the labour problem. Speaking in December 1903, however, he declared that legislation for the importation of labour would only be introduced if the Council were satisfied that it was essential in the interests of the country, and was in accordance with the wishes of the people. It is now a matter of history that the importation of Chinese labour was agreed upon, despite agitation against the measure. The Anglo-Chinese Labour Convention was signed in May 1904, and its terms were more liberal than anything previously offered to the Chinese. A large supply of the best class of labour was immediately available, and the first batch of labourers left Hong-Kong for Durban on the 25th May of the same year. There is no need to trace the subsequent history of the Chinese labour question in the Transvaal, nor to do more than refer to the plausible catch-cry which it furnished to the Radicals at the last General Election. Suffice it to say that up to the day of his departure from the Transvaal to take up his appointment in Madras, Sir Arthur Lawley defended the importation of Chinese labourers and pointed to the success that had attended their work.

On the eve of his departure, Sir Arthur Lawley, speaking in Johannesburg on the native question, expressed the view that the racial was the only question which then darkened the future of South Africa. He characterised the raising of the natives, immediately, to the level of the whites, as an acrobatic feat of evolution of which humanity was incapable. He endeavoured to impress on future politicians the seriousness of this question, and in conclusion he said:—"The natives are an element for good if they are moulded aright, but if not, they are a potential menace to the whole of South Africa. See to the question, for it is the greatest problem you have of face."

Sir Arthur Lawley was appointed Governor of Madras in November 1905, while still holding office in the Transvaal, and the appointment was recognised as a fitting tribute to the strenuous work he had accom-



His Excellency Sir ARTHUR LAWLEY, K.C.M.G., G.C.I.E.,
Governor of Madras.

plished in South Africa. His departure was felt by the Colony as a keen personal loss, and eulogistic references were made to the departing Lieutenant-Governor at the Inter-Colonial Council by Lord Selborne, the High Commissioner, and Sir Richard Solomon on behalf of the Government, and by Sir George Farrar on behalf of the unofficial members. Sir Arthur left the Transvaal for England on the 5th December 1905, and at a citizens' farewell he made an eloquent and earnest appeal for unity and co-operation between all sections of the community. General Botha, who was present, said that he shared the general regret at Sir Arthur's departure, and gave an assurance that he was taking the message to heart.

Sir Arthur Lawley arrived in Madras on the 28th March 1906, and assumed charge of the Administration from the Hon. Mr. Gabriel Stokes, Senior Member of Council, who had been officiating as Governor during the interval between the departure of Lord Ampthill and the arrival of the new Governor. In the course of the three years that have since elapsed, Sir Arthur Lawley has shown himself a sympathetic Governor, with a determination to see things for himself. He has always displayed an earnest desire to make himself acquainted at first hand with the requirements of every district he has visited, and his tours have formed a feature of his administration. Of the legislative measures passed during the last two years, the most important has been the Madras Estates Land Bill, which aroused the resentment of the landholders, and was made the subject of questions in Parliament. Legislation in this matter was not hurried, and the zemindars were given full opportunity to represent their views in the Madras Legislative Council. Their interests were carefully considered at every stage, and the Bill was passed in February 1908. In educational matters, Sir Arthur Lawley has been content to further develop the educational reforms initiated by his im-

mediate predecessor, more particularly with regard to female education, and the quinquennial report on education shows that during this period many reforms were carried out, as the result, partly, of natural expansion of administrative progress, and, partly, of recommendations made by the Educational Conference. There has recently been a marked activity in trade, accompanying an enhancement in the value of commodities, and generally speaking, the past three years have been prosperous years for the Presidency, marred only by the disastrous commercial failure, which carried distress to many and absolute ruin to a few. A most deplorable feature of recent years has been the increase of racial animosity, and the unrest which originated in Bengal has spread to Madras, in common with other parts of the country. The people, more particularly the student and middle and lower classes, have on some occasions shown themselves hostile to Europeans and disturbances have of late taken place in various parts of the Presidency, but have been instantly quelled. In 1907 the Government found it necessary to take disciplinary action at the Rajahmundry College, in consequence of the riotous and insubordinate behaviour of the students, following on the visit of Babu Bipin Chunder Pal in April 1907.

Personally, Sir Arthur Lawley is an optimist of the best sort, with a great admiration for the work that Great Britain has carried out in India, and an earnest desire to play his part in carrying on that work. He would be a good friend to the people and would aid their legitimate desires in every way; but there are limits to the patience of even the most progressive ruler, and some events in Madras are not at all calculated to forward the cause of reform.

Sir Arthur Lawley was married in 1885 to Annie Allen, daughter of Sir Edward Cunard, 2nd Baronet. He was created K.C.M.G. in 1901, and was made a G.C.I.E. in 1906.





The Right Hon. ARTHUR OLIVER VILLIERS RUSSELL, BARON AMPHILL, G.C.S.I., G.C.I.E.,
Ex-Governor of Madras.

THE RIGHT HON. ARTHUR OLIVER VILLIERS RUSSELL,

BARON AMPHILL, G.C.S.I., G.C.I.E.,

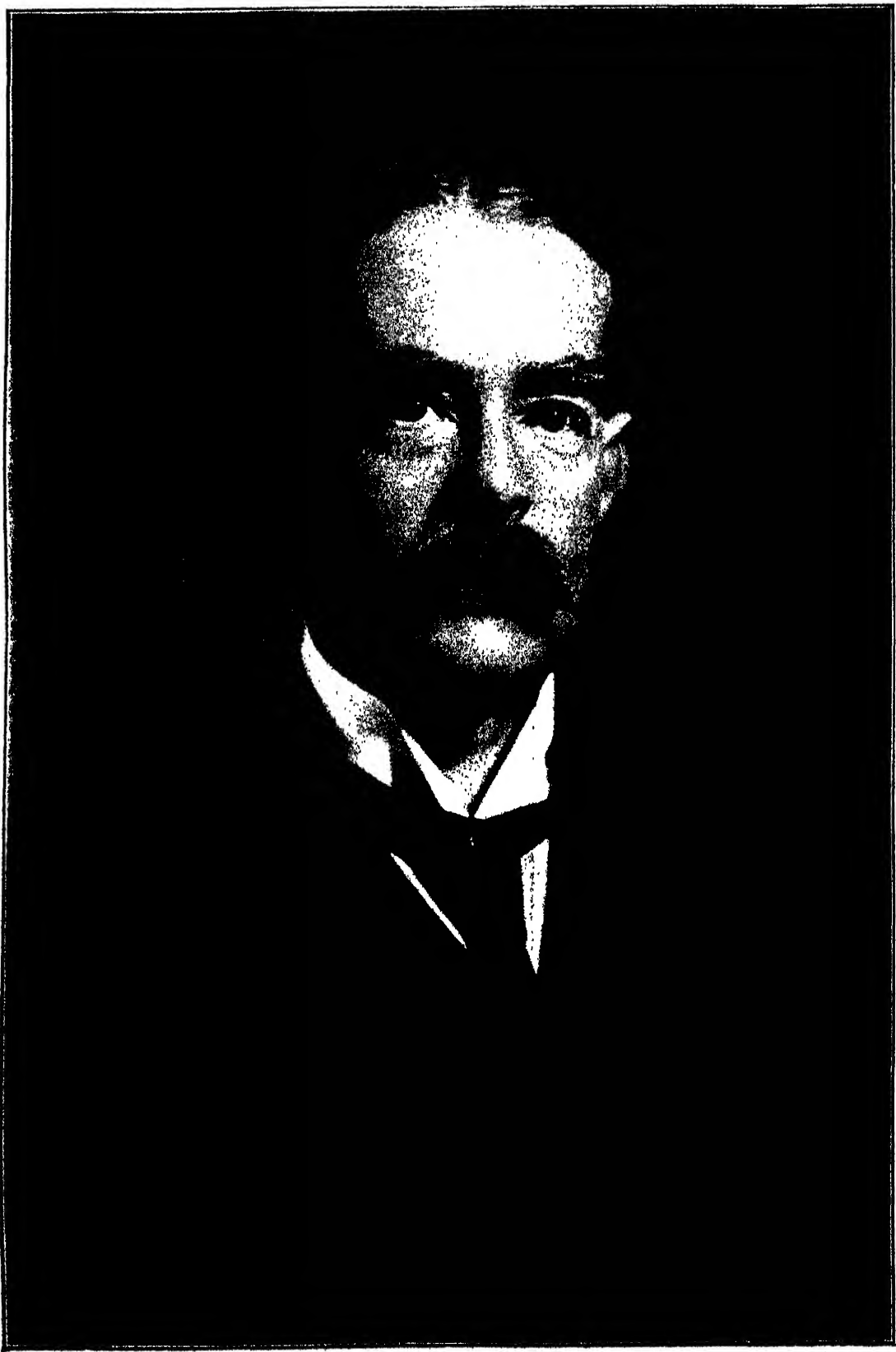
Ex-Governor of Madras.

THE Family of THE RIGHT HON. ARTHUR OLIVER VILLIERS RUSSELL, BARON AMPHILL, may be traced back to the followers of William the Conqueror, and in succeeding centuries they produced many men of distinguished influence, including William Lord Russell, Lord John Russell (whose name is indissolubly associated with the famous Reform Bill), and Lord Odo Russell, Lord Amphil's father. The Russells have served their country, with credit, in the State, in diplomacy, and in the Army and Navy, and the subject of this short memoir has already given evidence of abilities which should lead to even higher distinction. Born at Rome in 1869, his schooling began at Eton, where he showed an aptitude for study, winning the Prince Consort's prize for French and German; he was also elected president of the School Debating Society, and was captain of the Boats for two years—an unusual distinction. He carried his taste for books and athletics to Oxford, where he rowed for three years in the "Varsity Eight," and was president of the Union Debating Society, a much coveted honour, as this society has been the cradle of many of the best English public speakers. To have been at the same time president of the University Boat Club and of the Union is an honour which has only fallen to Lord Amphil. In 1895 he became Private Secretary to Mr. Chamberlain, Secretary of State for the Colonies, which post he held until called to Madras in September 1900. In these five years some of the most important occurrences in modern British history took place, including the Boer War, Australian Federation, the Venezuelan Crisis and the Jameson Raid. All these furnished a variety of political circumstances

that are rarely compressed into so short a period, and these events alone furnished a training of no mean order. In 1898 His Lordship attended the International Conference on the Sugar Question at Brussels as British Delegate.

On his arrival in India Lord Amphil had already formed habits of systematic and strenuous work which prompted him to take a very thorough interest in his new duties; this, along with his knowledge of official administration, enabled him to dispose satisfactorily and completely of an exceptional amount of work. The habit of thoroughness has done more than this: it gained him the confidence of the people, who learned to look on him as a benevolent friend rather than an official adversary. His intercourse with the people extended far beyond his official duties, rendering him a much-sought-for and honoured guest at every important social assembly. Of sports of all kinds he is an ardent and accomplished patron. Honorary Colonel of the Madras Volunteers, he fulfils his duties like a man who enjoys them, and as a leading figure in the Madras and Ooty Hunts he has done much to enlarge their membership. Cricket club and athletic associations find him a generous supporter, and his hospitality is impartially extended to every class—from the titled world traveller to school children. His Excellency is a Fellow of the Royal Geographical Society, Provincial Grand Master of Freemason for Bedfordshire, and Deputy Grand Master for Madras.

It is not surprising that so popular and able a man should have been chosen to act for the Viceroy during the temporary absence of Lord Curzon in England. This distinction has fallen only twice to the Governors of Madras,—to Sir William Denison in 1863 and to Lord Napier in 1872.



The Hon'ble Sir EDWARD NORMAN BAKER, K.C.S.I.,
Lieutenant-Governor of Bengal.

THE HONOURABLE SIR EDWARD NORMAN BAKER, K.C.S.I.,

Lieutenant-Governor of Bengal.

SIR EDWARD NORMAN BAKER, K.C.S.I., who was appointed Lieutenant-Governor of Bengal in June, 1908, is the son of the late Arthur Baker, and was born on the 23rd March, 1857. He was educated at Christ's College, Finchley, and passed into the Indian Civil Service in 1876, arriving in India on the 15th November, 1878. He was posted to Bengal, where he served the usual term as Joint Magistrate and Assistant Collector in various districts. In May, 1882, he became Under-Secretary to the Government of Bengal in the Financial Department. Three years later he acted as Under-Secretary to the Government of India, Finance and Commerce Department.

After four years as a Deputy Commissioner and three years as Deputy Secretary to the Government of India (Finance and Commerce), he put in some time as a District Magistrate until he was appointed Collector of Customs at Calcutta. In this capacity he was brought into intimate touch with the commercial interests of the country, and was afforded an excellent opportunity of studying the vast and ever-increasing trade of Bengal. Here he gained a first-hand acquaintance with the peculiar conditions and commercial problems which confront the Government of Bengal, and a thorough knowledge of the requirements of the trade and commerce of the province.

He next filled the post of Financial Secretary to the Bengal Government, and, amidst a storm of adverse criticism from a noisy section of the press, it fell to his lot to pilot the Calcutta Municipal Act of 1899 through the Bengal Legislative Council. This Act, which was initiated by the late Sir Alexander Mackenzie in 1898, aroused the antagonism of those who maintained that the time was ripe for granting to the natives of this province the fullest measure of local self-government. In the opposition there was displayed a good deal of personal animosity against Sir Alexander Mackenzie himself, owing to a certain speech made at Entally in which he had not hesitated to expose the shortcomings of the Native Municipal Commissioners. And as it fell to the lot of the Financial Secretary of the Bengal Government to steer this particular measure through the Bengal Legislative Council, he incurred a full measure of the opprobrium that had been heaped so unsparingly upon his former Chief—who had by that time left India.

The Hon'ble Mr. Baker, who had been created a C.S.I. in May 1900, filled the post of Financial Secretary to the Government of India, until Janu-

ary 1905, when he became the Financial Member of the Viceregal Council in succession to Sir E. F. Law, K.C.M.G., K.C.S.I. In this appointment his great abilities found full scope, and although some of his financial measures—more especially his policy with regard to the use of the gold standard reserve—found strenuous opponents, his control of the finances of the country was, on the whole, eminently successful.

For three years it was his good fortune to submit Budgets in which the actual surpluses exceeded the estimates; but owing to the famine conditions which prevailed throughout the North-Western parts of India in 1906, his final Budget was not so satisfactory, and even the nominal surplus was reduced to less than a third of the amount that had been anticipated. The period covered by the Hon'ble Mr. Baker's Budgets marked the introduction of a revised system of Financial Settlements, by which it was determined to assign to the local Governments more permanent shares in the divisible revenues raised in their territories, while the recent division of Bengal further necessitated fresh settlements with the new Provinces thereby constituted.

Other features that marked the period of the Hon'ble Mr. Baker's financial control were a further reduction of taxation, especially in the rate of the Salt tax; the remission of the famine cesses imposed in Northern India in 1877-78; liberal grants made to local Governments for police, education, and agricultural development; subventions to local boards; and the abolition of cesses levied for the payment of village officials, and for the maintenance of the District postal system, now transferred to the Imperial Postal Service. Important changes were also introduced into the system of accounts.

In the last Budget framed by the Hon'ble Mr. Baker the dominant factor was famine, and, the financial position being what it was, the Financial Member was unable to recommend any remissions of taxation, or to commit the Government to any schemes involving a large outlay. Money, however, had to be found for the scheme of Police Reform, outlined by Sir Andrew Fraser's Commission, for which twelve lakhs of rupees were allotted, and also for the advancement of Sanitation, for which thirty lakhs of rupees were budgetted. But, following on three prosperity Budgets, the Hon'ble Mr. Baker's fourth and last Financial Statement was but commonplace, owing to the adverse conditions under which it was framed.

It was notified on the 1st June, 1908, that His Majesty the King-Emperor had approved the appointment of the Hon'ble Mr. E. N. Baker,

Financial Member of the Governor-General's Council, to be Lieutenant-Governor of Bengal in succession to the Hon'ble Sir Andrew Fraser, whose term of office would expire in the following November. The selection had been generally anticipated for some time previously, and there was no difference of opinion in official circles as to the fact that the best possible man had been chosen for this difficult post. The Knight Commandership of the Star of India was bestowed in due course, and after a period of furlough, Sir Edward Baker returned to India at the end of November, and assumed office as Lieutenant-Governor of Bengal on the 30th November, 1908.

The Hon. Mr. Baker had long been acknowledged as the most capable member of the Government of India, and his reputation was enhanced by his conduct of the financial affairs of the country, and by his shrewdness, quickness, and firm grasp of economic principles displayed in his speeches in the Viceregal Legislative Council. His appointment as Lieutenant-Governor of Bengal was hailed with satisfaction on all hands; the Native papers for once being in accord with their Anglo-Indian brethren in welcoming the new Ruler. Sir Edward Baker has, however, already shown that, although inclined to sympathise with and to give support to reasonable aspirations on the part of the educated classes, he will not court popularity by tolerating anything remotely approaching sedition. He took up the reins of Government in Bengal at a critical juncture, but although his knowledge of the conditions and needs of the province are unquestionable, as also is the fact that he has learned to appreciate some of the real requirements of the country whose finances he has administered, his good intentions may be frustrated, and his eminent qualifications may be neutralised, by the racial problems with which he is confronted, and the political confusion that prevails.

Recognising the changes the Legislative Councils are about to undergo, Sir Edward Baker has, with characteristic promptitude, begun to train the Bengal Legislative Council for their work, and into the Budget discussions at the beginning of April, 1909, he imported some of the atmosphere of reform. He is evidently of opinion that the legislators of Bengal—more particularly the native element in the Council—must learn something of the discipline of a Parliamentary Chamber, and of Western ideas of the value of time. They must, he said, "accustom themselves to the greater regularity and stricter attention the new constitution will entail," and he further implied that they could indulge themselves no longer in the pleasant pastime of re-arranging the whole fabric of society and Government at each and every sitting of the Council. While preaching a lesson of the subject of relevancy, the Lieutenant-Governor was careful to add that the primary object of the reforms is to increase, and not contract, the opportunities for public discussion. There will, as he pointed out, be opportunities that have never before existed for making debates, proposing resolutions and asking supplementary questions. In these altered conditions it is obvious that the length of the Council sittings will be greatly prolonged, and it is also certain that the preparation of work for the Council will occupy double or treble the time it does at present. In view of these facts it is interesting to note that Sir Edward Baker looks upon the creation of an Executive Council for Bengal as the natural and appropriate solution of these difficulties, and this experiment, which has already received the sanction of the Secretary of State for India, confirmed by the proceedings in both Houses of Parliament, will shortly be put on its trial in Bengal.





The Honourable Sir HERBERT THIRKELL WHITE, K.C.I.E., I.C.S.,
Lieutenant-Governor of Burma.

THE HONOURABLE SIR HERBERT THIRKELL WHITE,

K.C.I.E., I.C.S.,

Lieutenant-Governor of Burma.

SIR HERBERT THIRKELL WHITE, Lieutenant-Governor of Burma, was born in 1855, and is the son of Richard White, Esq. He was educated at Dulwich, and at Brasenose College, Oxford, where he gained a Scholarship. He entered the Indian Civil Service in 1877, and the whole of his period of service has been passed in Burma. He served in various districts of Lower Burma in the several capacities in which the junior members of the Service gain their experience, and in 1897 he went as Commissioner with the Burma-China Boundary Commission. It was at this time that the Province, as a division of the Indian Empire, was first administered by a Lieutenant-Governor, with a Legislative Council; and on the establishment, just three years later, of a Chief Court for the Province, the Hon. Mr. White was appointed Chief Judge. In Lower Burma the Chief Court occupies the position of a High Court for the purposes of both Civil and Criminal Justice, and it discharges the functions previously performed by the Recorder of Rangoon, the Judicial Commissioner of Lower Burma, and a Special Court in which both these officials sat together, sometimes along with a third Judge.

In 1903 the Hon'ble Mr. Justice White was created a K.C.I.E., in recognition of his public services, and in 1905 he became Lieutenant-Governor of Burma in succession to Sir Hugh Shakespear Barnes, K.C.S.I.

Of the progress made in the Province under the administration of Sir Herbert Thirkell White, some account is given elsewhere. The difficulties with which capital and labour have had to contend in the development of the Province, owing to the want of

communications, have long been a standing grievance and there had for long been a lack of enterprise in railway extension and road making. This is being remedied, and Sir H. T. White has shown that he is fully alive to the requirements of the Province in these respects. A large amount of attention has been bestowed on the improvement of the Port of Rangoon and the Government of India in May, 1900, sanctioned the whole scheme of the Rangoon River training, and work on this immense undertaking is now in progress. In many other directions the Lieutenant-Governor has been active in promoting the interests of the Province, and he has presented a friendly, if critical attitude towards the reforms that are about to be introduced, and the enlargement of the Council. With regard to this latter he has practically pledged himself to see that the trades of Burma shall be adequately represented on the enlarged Council through the Rangoon Trades' Association.

In matters of a more personal nature, we may mention the influence Sir H. T. White has gained over certain of the semi-barbarous and semi-independent States. By the Shan Chiefs he will be held in grateful remembrance. Not only has he reduced the amount of their annual tributes for the next ten years, but he has been active in promoting education in these remote and wild regions, and he is using his influence to push on the general scheme of railway extension by which the Shans will get the benefits of a railway through their country.

In 1877 Sir Herbert Thirkell White married Fannie Sophia, daughter of Captain William Hawes, R.N., by whom he has had two sons and two daughters.



THE HONOURABLE MR. R. H. CRADDOCK, C.S.I., I.C.S., Chief Commissioner, Central Provinces.



R. REGINALD HENRY CRADDOCK, C.S.I., I.C.S., Chief Commissioner, Central Provinces. Joined the service on 12th September 1884. His father was a Surgeon-Major in the Bengal Medical Service. Mr. Craddock was educated at Wellington College and at Keble College, Oxford. He married in 1888, the youngest daughter of General H. R. Browne, C.B. He served in various districts for short periods until 1888, when he was posted to Nagpur as Assistant to Sir Bampfylde (then Mr.) Fuller. This commenced Mr. Craddock's long connection with Nagpur, with which he has been more particularly identified by his work as Settlement Officer (1890-1895). Mr. Craddock was the most distinguished of the various officers who owed their training to Sir Bampfylde Fuller, and his report on the settlement of the Nagpur District is well known for its clear exposition of the principles of the Central Provinces system of land assessment, as evolved by Mr. Fuller, as well as for its intimate acquaintance with rural economies. Mr. Craddock remained at Nagpur in the capacity of 2nd Secretary, Commissioner of Settlements, Famine Secretary, and Chief Secretary, from 1895 till 1900, during which period he took a considerable share in the various amendments of the Agrarian law of the province, and in the measures required to meet the two serious famines of 1896-97, and 1899-00, as well as in those so successfully adopted to repair their ravages, and assist in the restoration of prosperity after their close.

In all this, his knowledge of the relations of landlord

and tenant, and of the agricultural economy of the people was of much service to successive Chief Commissioners. As Commissioner of the Nagpur Division, a post which he held from 1901 to 1907, Mr. Craddock took an active part in the development of the city of Nagpur, and there are few of the recent extensive schemes for its improvement, whether Government

or Municipal, that do not bear the impress of his hand. He had always realised the importance to the growing resources of the Central Provinces of a well considered and active policy of railway construction, and the railway companies found in him a sound adviser and ready supporter. It was in the Nagpur Division that the main work of the newly-constituted department of Irrigation lay; and it is to Mr. Craddock's support, and to his experience of local agricultural conditions, that much of the success already attained by the irrigation policy of the Central Province Government is due.

In 1903, Mr. Craddock was invested with the C.S.I.

He was appointed Chief Commissioner in 1907, in spite of the fact that he had never filled any post outside the province; and the period during which he has held the appointment has been of a nature fully to test his know-

ledge of and sympathy with the people; while his constant study of industrial and agricultural conditions has helped him greatly in dealing with the various problems which the rapid development of the province and the increase in the wealth and civilization of its inhabitants have offered for the solution of Government.



The Honourable Mr. R. H. CRADDOCK, C.S.I., I.C.S.
Chief Commissioner Central Provinces.

THE HONOURABLE SIR BASIL SCOTT, Bar.-at-Law,

Chief Justice of Bombay.

SIR BASIL SCOTT, Bar.-at-Law, Chief Justice of Bombay. Born, June 12, 1859, second son of the late Henry Scott, Esq., of Hyde Park Street, London. Educated at Haileybury and Balliol College, Oxford. He took his B.A. degree at Oxford in 1882, and three

admitted as an Advocate of the Bombay High Court. From April to December 1899, he acted as Advocate-General of Bombay, and had a second spell of this officiating office during the whole of the year 1901, at the conclusion of which he was confirmed in the appointment. He acted as Puisne Judge of



The Honourable Sir BASIL SCOTT, Bar.-at-Law,
Chief Justice of Bombay

years later graduated as M.A. On leaving College he became pupil first to Mr. Jasper Peck and subsequently to Mr. (now Sir) Gorell Barnes and Mr. William Latham, K.C. As a member of the Inner Temple he was called to the Bar in January 1884, and in the following year

the Bombay High Court from December 1905 to October 1906, at the end of this period reverting to his post as Advocate-General. In April 1908 he was definitely raised to the Bench as Chief Justice of Bombay, and was knighted in 1909.

THE HONOURABLE SIR CHARLES EDMUND FOX, KT.,

Bar.-at-Law,

Chief Judge of the Chief Court of Lower Burma.

SIR CHARLES EDMUND FOX, KT., Bar.-at-Law, Chief Judge of the Chief Court of Lower Burma, was born in February 1854 at St. John's, Newfoundland, and was educated at Prior Park College, Bath.

Officiating Government Advocate, Burma. In 1881 he returned to Calcutta. In 1884 he was again appointed officiating Government Advocate, Burma, and in March 1886 was confirmed in the appointment. He filled this latter position for fourteen years until in April 1900,



The Honourable Sir CHARLES EDMUND FOX, KT.,
Bar.-at-Law, Chief Judge of the Chief Court of Lower Burma.

He was called to the Bar in January 1877. In December of the same year he was admitted an Advocate of the High Court of Fort William in Bengal, Calcutta. In 1879-80 he was appointed

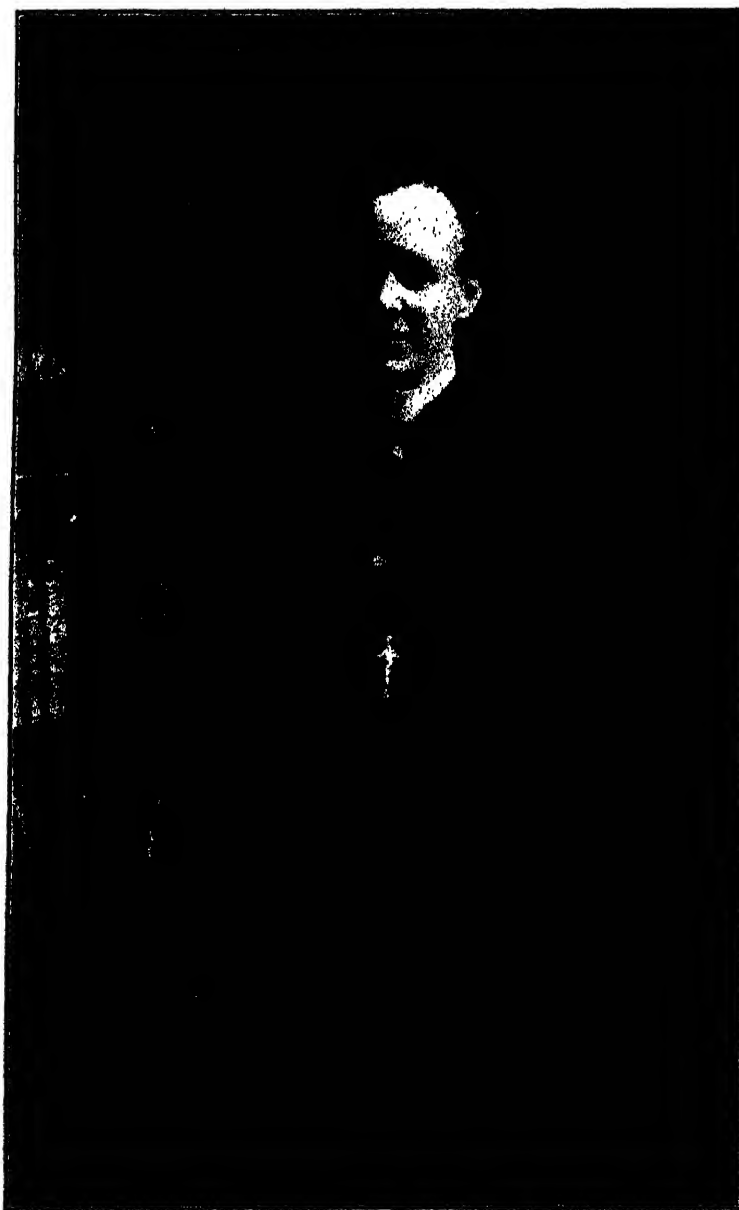
he was appointed to the Chief Court, Lower Burma, as Puisne Judge. In October 1906, he was appointed Chief Judge of that Court. He received the honour of Knighthood on the 1st January 1907.

THE RT. REV. HENRY WHITEHEAD, D.D., Bishop of Madras.

THE RT. REV. HENRY WHITEHEAD, D.D., now Bishop of Madras, was born in 1853, and was educated at Trinity College, Oxford, where he gained a Fellowship. In 1884 he was appointed to the post of Principal of Bishop's College, Calcutta, an appointment that was eventually to have the greatest influence on the work of the Oxford Mission in Bengal, with which Mission much of his early work in this country was associated. Indeed, it had been the intention of the Rev. Henry Whitehead, when he first came out to India, to offer himself for work with the Oxford Mission, but, for the time being, the call to the management of Bishop's College appeared to be one that he could not put aside. What at first had seemed a hindrance to his hopes was in the end a means to their realization, for when the proposal was made that he should become Superior of the Oxford Mission, the Society for the Propagation of the Gospel, under whom he was working, raised no objection to his retaining the post of Principal of the College as well. And thus, without being united by any formal act, the works which had grown up round the Oxford Mission, and those which belonged to the Society for the Propagation of the Gospel in Calcutta and the immediate neighbourhood, became closely connected, and were directed practically by one head.

As Mr. Whitehead had long had the confidence of the members of the Mission, it was with joy that they welcomed him as their head, but in accordance with the constitution he could not formally join the Brotherhood of the Epiphany until after a year's probation; so that the appointment had for the time to be provisional, the public and final installation being deferred till 1891. From this time until 1899, when he became Bishop of Madras, Mr. Whitehead's

work was closely identified with that of the Oxford Mission, which carries on its labours mainly in the interests of the students of this city. He was strongly in favour of the hostel system, which, he maintained, gave the Mission a leverage and a means of influence among the students which was of the utmost value. The first hostel in connection with the Brotherhood was opened in 1894. It was felt to be a venture, as it was a very strong step for a Hindu to live in the same house with a European, and a still stronger step to live under the immediate influence of a Christian Mission. However, all doubts were quickly removed when about forty applications were made for the ten rooms that were available, and the hostel, which had been started as a venture of faith, became an established and permanent fact. The aim was to get thoroughly in touch with the daily life of the students; not only



The Rt. Rev. HENRY WHITEHEAD, D.D.,
Bishop of Madras.

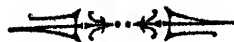
to address them in lectures and meet them on public occasions, or pay them periodical visits, but to gather a certain number in intimate intercourse, and try to make the influence of the Mission felt upon all the little details of their ordinary life. Since it was started in 1880 the Oxford Mission has been a vital force in Bengal. It gained in influence in the years that Mr. Whitehead was its directing genius; but we gather that it was uphill and unthankful work, and that the results were disappointing, but not sufficiently so to discourage the brave workers in the mission field.

In 1899 Mr. Whitehead became Bishop of Madras, and the venue of his activities was transferred to the Southern Presidency, where, with a large diocese under his control, and a comparatively large Christian

population, steeped for the most part in abject poverty, he has carried on his labours with undiminished energy. In the northern part of his diocese, amongst the Telugu population, there is at the present time something like a mass movement towards Christianity, and the Bishop is making strenuous efforts to provide the necessary teachers. Under his encouragement, also, the Indian Christians of Tinneveli have started a wholly indigenous mission in the same (Telugu) country, which is meeting with wonderful success. At Bangalore a Brotherhood has been started on similar lines to the Oxford Mission and there are the beginnings of another at Madras. The Bishop is the heart and soul of all the work in his vast diocese.



MADRAS CATHEDRAL



THE RT. REV. EDWIN JAMES PALMER, M.A.,

Bishop of Bombay.

ON the 19th April, 1908, the announcement was made that His Majesty the King-Emperor, on the recommendation of the Secretary of State for India, had been pleased to appoint the Rev. Edwin James Palmer, M.A., Fellow and Tutor of Balliol College, Oxford, to be Bishop of Bombay.

The Rt. Rev. E. J. Palmer who was born in 1869, is the only son of the late Ven'ble Edwin Palmer, Archdeacon of Oxford, who married Miss Henrietta Riddell, and who was the youngest brother of the first Lord Selborne, Lord Chancellor of England. Mr. Palmer was educated at Winchester College, and at Balliol College, Oxford. He was Scholar at Winchester, and he had a distinguished career at Balliol College, Oxford, where he won an open scholarship. In 1889 he was awarded the Craven Scholarship and a first class in Classical Moderations, and he graduated in 1891 with a first class in Lit. Hum. In the same year he was elected to a Fellowship at Balliol. After spending a term at the University of Bonn, he returned to Oxford, and worked as Fellow and Tutor of Balliol College till he was appointed Bishop

of Bombay. He was ordained Deacon in 1896 and then became Chaplain of his College, and was ordained Priest in 1898. Bishop Ridding, under whom he was educated at Winchester, made him his Examining Chaplain, and the close relations between the two men may be gathered from Lady Laura Ridding's

recent "Life" of her husband. In 1903-1904 he was Senior Proctor of the University, and from 1904 to 1908 he was Chairman of the Junior Clergy Missionary Association in connection with the Society for the Propagation of the Gospel. At the time of his appointment to the Bishopric of Bombay, the Rev. E. J. Palmer was Examining Chaplain to the Bishop

of Southwark, and he was consecrated Bishop of Bombay on Ascension day, 1908, in Southwark Cathedral.

Bishop Palmer is a man of great intellectual keenness, and his strong interest in social questions from a "Christian Social" point of view was apparent from the vigorous part he took in the Pan-Anglican Congress shortly before his departure from England for Bombay. His attachment to the cause of Missions is beyond question, and a few years ago, in this connection, he paid a visit to South Africa, where his cousin, Lord Selborne, is High Commissioner. Being a Liberal and a Moderate High Churchman, he probably commended himself to Lord Morley as being likely to avoid the policy of the late Bishop Pym, whom he succeeded, and his



The Rt. Rev. EDWIN JAMES PALMER, M.A.,
Bishop of Bombay.

appointment was a reversion to a type of Bishop at present well represented in the Indian Episcopate, which counts among its members who are former Oxford tutors, the Bishop of Calcutta and the Bishop of Madras.

THE RT. REVD. EYRE CHATTERTON, D.D., F.R.G.S.,

Bishop of Nagpur.

THE RT. REVD. EYRE CHATTERTON, D.D., F.R.G.S., Bishop of Nagpur. Son of the late A. T. Chatterton, Esq., and nephew of the Rt. Hon. Hedges Eyre Chatterton, Vice-Chancellor of Ireland, and on the distaff side nephew of the late Sir Eyre Massey Shaw, K.C.B. Born at Monkstown, County Cork, Ireland, in the year 1863, and educated at Haileybury College and Dublin University, where he took honours in classics and literature, was Senior Moderator and Gold Medalist, Ethics and Logic, First Theological Exhibitioner. He took orders, being ordained by Bishop Lightfoot in 1887. From this year to 1891 he held the curacy of Holy Trinity, Stockton-on-Tees. In the latter year he came to India as the head of the Dublin University Mission to Chota Nagpur. He returned to England and was Senior Curate in the Parish of Richmond, Surrey, 1901-02, but subsequently came out to India again in his present capacity of Bishop of Nagpur. He has published the "Story of Fifty Years Mission Work in Chota Nagpur" and various magazine articles.

The Diocese of Nagpur is a most important one, extending for over a thousand miles in length by six or seven hundred in breadth. It contains the Central Provinces and the Berars, and the Native States of Central India and Rajputana. It is coterminous with the Dioceses of Calcutta, Madras, Bombay, Lucknow and Lahore. Scattered about this huge expanse of country, there is but a handful of Christians of the Church of England, about fifteen thousand in number, ministered to by some thirty clergy. The majority of these Christians are Englishmen, principally soldiers. There are also Church of England Missionaries, about 15 clergy working among the Indian population in different centres, and the Bishop's duties in directing the whole of the work and touring throughout this vast tract of country are not light. The Bishop has been a noted athlete. His recreations are Tennis, in which he was the holder of the University Championship for three years, and of several other championships, including that of the English Midland Counties; Golf, Riding, Cycling, and Music.



The Rt. Revd. EYRE CHATTERTON, D.D., F.R.G.S.,
Bishop of Nagpur.

THE MOST REVEREND DR. JOSEPH COLGAN, D.D.,

Roman Catholic Archbishop of Madras.

THE MOST REVEREND DR. JOSEPH COLGAN, D.D., Archbishop of Madras, was born at Donore, County Westmeath, Ireland, on the 1st April 1824, his parents being extensive land-holders in that county. He was educated at the Diocesan Seminary, Navan, and at the Royal College, Maynooth. He arrived at Madras on the 4th February 1844, one of a band of priests, clerical students, monks, and nuns, who had come out to labour in the East and had made the passage round the Cape in the sailing-ship *Lady Flora*. Of this devoted band of workers, His Grace is now the sole survivor. His first appointment in Madras was as Principal of the old St. Mary's Seminary, and two years later, on the 5th October, 1846, he was ordained a priest of the Vicariate-Apostolic of Madras.

From the day of his ordination as priest Dr. Colgan has laboured with zeal in the cause of religion, morality, and Catholic education, and under his fostering care, colleges and schools, convents and orphanages have been sustained and promoted. He rendered valuable service to Government as Military Chaplain to the troops in Poonamallee, Pallavarum, St. Thomas' Mount, and Fort St. George, from 1862 to 1882 up to the date of his consecration as Bishop of Aureliopolis and Vicar-Apostolic of Madras. It was by means of a house-to-house visitation in 1865-66 that he collected

the necessary funds for the completion of the Church of St. Francis Xavier in Popham's Broadway, Madras, and he likewise collected the money for the erection of the Boys' Orphanage buildings in the Cathedral precincts, and for the purchase of the Cathedral organ. In 1867 he paid a visit to his native land, and on his return to Madras in 1869 he was appointed

Vicar-General by the late Dr. Stephen Fennelly, at that time Bishop of Madras. Shortly after this he was made Administrator of the Vicariate of Madras, during the absence of the Bishop at the Vatican Council. On the death of Dr. Stephen Fennelly in 1880, Dr. Colgan was re-appointed to the same office, and two years later he was nominated Vicar-Apostolic of Madras. On the establishment in 1887 of the Hierarchy in India he was proclaimed the first Archbishop of Madras, and in 1894 on the occasion of his Diamond Jubilee, His Grace having then completed the fiftieth year of service in India, he was nominated Assistant at the Pontifical Throne by his late Holiness Pope Leo XIII. It was two years after this, when



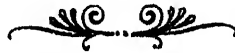
The Most Rev. Dr. JOSEPH COLGAN, D.D.,
Archbishop of Madras.

Dr. Colgan was on his way to Rome, that the news of his death was received in Madras, to the great grief of his flock. Subsequently the report was found to be false, the mistake having been due to an error in the transmission of a telegram.

While safeguarding and promoting Catholic interests Dr. Colgan has been prominent in the part he has tak

in all public movements having as their object the social well-being, relief, and amelioration of his fellow-citizens of whatever colour or creed. The valuable and effective aid rendered by him as a member of the Executive Committee during the terrible famine in the Madras Presidency in 1877-78, earned the thanks of the General Famine Committee, and of the Governor of Madras. As the guardian of Catholic higher education and Fellow of the Madras University, he was selected by the Supreme Government as a Member of the Educational Commission which sat in Calcutta in 1881; but the onerous duties of his office as Administrator of the Diocese of Madras prevented his attendance at these conclaves. The Friend-in-Need Society, the Madras Catholic Indian Association, the Eurasian and Anglo-Indian Association, and the Society for the Prevention of Cruelty to Animals have all found in Dr. Colgan a staunch and sympathetic supporter and patron. During his régime, St. Mary's Seminary has

been raised to the rank of a second-grade College, and the Presentation Convents have likewise been raised to the same status, while the Catholic schools, colleges, convents, and orphanages generally have reached a high standard, a result which His Grace attributes in a large measure to the zealous and self-sacrificing clergy and nuns, who have proved themselves indefatigable fellow-labourers and have afforded him unquestioning obedience. Among the many useful institutions whose interests he has done much to promote, may be mentioned the Madras Catholic Club, an institution for the moral improvement and recreation of the Catholic young men of Madras, which was founded by Dr. Colgan. This Club fulfils a very useful purpose in Madras, and has a very large membership not confined to Catholics only. It possesses a library of upwards of 1,000 books. Work of this kind, undertaken for the benefit of all sections of the community, Archbishop Colgan has always looked upon as an essential portion of his public duties.



Official.

The Hon'ble Sir CHARLES STUART BAYLEY, K.C.S.I., Resident at Hyderabad. The Hon. Sir Charles Bayley was born on the 17th March, 1854, and is the son of the late Captain Daniel Bayley, formerly of the East India Company's Bengal Cavalry. He was educated at Harrow and Heidelberg. Barrister-at-Law, Lincoln's Inn, 1877. He was appointed to the Indian Civil Service after the examination of 1875, and arrived in India in December 1877. He served as Assistant Magistrate and Collector in Bengal till 1880, when he was appointed Assistant Secretary to the Chief Commissioner of Assam. He then filled in succession the posts of Under-Secretary to the Government of Bengal, Officiating Registrar of the High Court, Under-Secretary to the Government of India in the Revenue and Agricultural Departments, and Assistant Commissioner of Ajmer. He was Political Agent in Bikaner from 1888 to 1894, when he officiated for a short time as Additional Private Secretary to the Viceroy. Later on he became General Superintendent of operations for the suppression of Thuggi and Dacoity. In 1900 he became officiating Agent to the Governor-General in Central India, and in 1901 he was confirmed in that appointment. He remained in Central India until the 1st March 1905, when he succeeded Sir D. W. K. Barr, K.C.S.I., as Resident at Hyderabad.

On the 1st January 1903, the Hon. Mr. Bayley was created a Companion of the Star of India, and in the following year he took a prominent part in the ceremonies and festivities organized by His Highness the Nizam in honour of the visit of

their Royal Highnesses the Prince and Princess of Wales to Hyderabad. When in May 1908, Sir Lancelot Hare, Lieutenant-Governor of Eastern Bengal and Assam, was obliged to proceed on six months' leave on medical certificate, the choice of the Government of India fell upon the Hon. Mr. Bayley to fill the acting appointment.

On the 26th June 1908, the Hon. Mr. Bayley was created a K.C.S.I. He married in 1880, Sarah Constance, daughter of Major-General A. E. Campbell, Indian Staff Corps.

Surgeon-General PERCY HUGH BENSON, M.B., C.M., M.R.C.S., Surgeon-General to the Government of Madras. Born in London on February 1, 1852 and received his education at Shrewsbury School,



Surgn.-Genl. P. H. BENSON

and underwent his medical training at St. Bartholomew's Hospital, London. He gained the "Foster Prize" in senior practical anatomy at this institution in 1871, and was appointed Prosector of Anatomy at the Royal College of Surgeons the same year. On 31st March 1874, he received his commission after taking 4th place in the competitive examination for the Indian Medical Service. On leaving Netley he had the honour of being one of those specially recommended to the Government of India by the Secretary of State. He rendered excellent services during the great famine in South India in the year 1876, for which he received the thanks of the Commissioner of Mysore. During the Prince of Wales' visit to India General Benson had the honour of being medical officer in charge of His Royal Highness' Camp in the Annamali Hills. Until 1876 he was in medical charge of various native regiments in different parts of Madras, when his services were placed at the disposal of the Government of India by whom he was employed in a civil capacity in charge of various Jails and as Residency Surgeon, Bangalore. After furlough in 1885 his services were placed at the disposal of the Mysore Government, by whom he was appointed Superintendent, Mysore Jail and Maternity Hospital, and Chemical Examiner and Sanitary Commissioner. He received the rank of Lieutenant-Colonel in 1894. In 1896 he was appointed Senior Surgeon and ex-officio Sanitary Commissioner and Inspector-General of Prisons, Bangalore. From 1st June 1903 to February 1904

his services were placed at the disposal of the Government of India for employment as officiating Inspector-General of Hospitals, Burma, when he reverted to his former appointment. From 10th April 1904, his services were temporarily placed at the disposal of His Excellency the Commander-in-Chief in India for employment as Principal Medical Officer, Madras Brigade. In October 1905, he was appointed to the same office with the Southern Brigade, Bangalore, and in the following year he received the appointment of officiating Surgeon-General with the Government of Madras. He was granted the temporary rank of Surgeon-General from 30th April 1906, and he handed over on 3rd November of same year to Surgeon-General Browne, and was appointed in succession Principal Medical Officer, Poona and Secunderabad Divisions. On 1st April 1908, he received his present substantive rank and appointment as Surgeon-General of Madras. General Benson has long been identified with Freemasonry. He built the Masonic Lodge at Mysore, and has held the chair in the Craft and Mark degree. He is a good sportsman and interested in Racquets, Cricket and Golf.

Mr. JOHN BHOORE, A.M.I.C.E., M.R.S.A.N.I., Sanitary Engineer to Mysore Government, Public Works Department. Born at Bombay, educated at Bombay and Worthing, and R. I. E. College, Coopers Hill, England. On passing out of Coopers Hill in the year 1893, he was apprenticed to Messrs. J. Westwood and Co., London, and to the Great Western Railway, England, for one year's practical training. He proceeded to India in 1894 and joined the Mysore State Department of Public Works in the same year. In July of that year he was appointed Assistant Engineer at Chikmagalur, being transferred in the following September in the same capacity to Koppa Range, Koppa. In February 1895 he was appointed Officiating Executive Engineer at Chikmagalur and in the following month returned to Koppa in that capacity. In 1898 he was transferred to Shimoga where he officiated as

Executive Engineer, and later in the same year acted in the same capacity at Marikanave. In 1901 he was transferred to Sivasamudram as Assistant Engineer and in September of same year was appointed to officiate as Resident Engineer, Cauvery Power Scheme Division, at



Mr. JOHN BHOORE.

the same centre. He remained here till 1903 when he was appointed to the Palace Division, Mysore. He was sent on deputation to England in 1903 for a period of two years to undergo a special training in Sanitary Engineering. He was elected a member of the Royal Sanitary Institute, London, 1906. He received the thanks of the Government of His Highness the Maharaja of Mysore in 1904 for work done in connection with the Cauvery Power Scheme where he acted as Personal Assistant to the Resident Engineer, and for a short period towards the completion of the work as Officiating Resident Engineer. Mr. Bhore is a member of the Society of Arts, London. He is a first class rifle shot, and was Captain of the shooting team at Coopers Hill. He won the Battalion Prize at Churn Meeting, England.

Sir ARTHUR CHARLES FRANCIS HENRY MARIA BERNARD BLENNERHASSETT, *Bart.*, B.A., I.C.S., Deputy Commissioner, Jubbul-

pore, Central Provinces. Son of the Rt. Honourable Sir Rowland Blennerhassett, 4th Baronet, P.C., of Churchtown and Blumerville Co., Kerry. Born at Munich on April 14th, 1871; educated at Continental schools and at Balliol College, Oxford, where he took his degree as B.A. in 1895. Joined the Indian Civil Service in the same year and arrived in India December 6th. He was appointed Assistant Commissioner in the Central Provinces and served at Nagpur, Wardha, Saugor and Damoh, on several occasions holding charge of the current duties of the office of Deputy Commissioner. After returning from furlough in 1899 he was posted as Assistant Commissioner to Jubbulpore, where he officiated as Deputy Commissioner in 1901. After officiating later in the same year as Political Agent, Chhattisgarh Feudatories, for a short term he was reposted to Jubbulpore. From 1902 to 1904 he

Sir A. BLENNERHASSETT, *Bart.*

officiated for a period as Divisional and Sessions Judge, Jubbulpore Division, and as Deputy Commissioner at Jubbulpore and Seoni. On return from furlough in 1905 he served for a short time in the Yeotmal District, Berar, and then as Under-Secretary to the Chief Commissioner, C. P., at Nagpur. In 1906, he was posted to Jubbulpore as Deputy Commissioner and is

now serving there in that capacity. Sir Arthur Blennerhassett comes of an old Cumberland family taking their name from the township of Blennerhassett in that county, where they had been seated for several centuries before they acquired estates in Co. Kerry in the reign of Queen Elizabeth. They represented Carlisle in nearly every Parliament from the reign of Richard II to James I and have since then in almost every generation represented either Kerry County or the Borough of Tralee (Ireland). In 1899, Sir Arthur Blennerhassett married Mary Frances, only daughter of the late Baron Ludwig von Aretin of Haidenburg, Bavaria, and has one son, Marmaduke Casimir Henry Joseph, born in 1902.

Mr. HERBERT JAMES BRERETON, Accountant-General, Burma, was born at Bedford in 1853 and educated at Bedford Grammar School, where his grandfather, the late Doctor Brereton, was Head Master. He came to India in the year 1872 and his first post was as Assistant Accountant-General at



Mr. H. J. BRERETON.

Allahabad. He has had a long and meritorious career, having filled every office in his Department and served in every province of India and Burma except Sind. He has held the posts of Deputy Com-

troller-General and Deputy Auditor-General. He was appointed Accountant-General for Burma in December, 1907.

Sir BIPIN KRISHNA BOSE, Kt., Rai Bahadur, M.A., B.L., C.I.E., Government Advocate, Nagpur. Born at Calcutta, January 20, 1851. Educated at Presidency College, Calcutta, took his degrees of M.A. and B.L. in 1871 and 1872,



Sir BIPIN KRISHNA BOSE, Kt.

respectively. He first commenced the practice of the legal profession at Jubbulpore, but in 1874 transferred his practice to Nagpur, where he has been most successful as an Advocate. In addition to his legal labours Sir Bepin has always been most liberal of his time and energies for public objects. He is Secretary of the Neill City High School, which position he has filled for more than thirty years, having first taken up the duties in 1876. He is also one of the founders of the Morris Memorial College and its governing Council. He has done excellent work as a member of the Nagpur Municipality with which he has been connected since 1883. For two years he acted as Honorary Secretary to the Municipal Committee. He has also been a member of the District Council of Nagpur since 1883 and a member of the Dufferin Committee, Central Provinces, since

1888. In 1898, he served as a member of the Famine Commission of that year, having previously (1896-97) been Honorary Secretary of the Central Provinces Branch of the Indian Charitable Relief Fund. In 1899-1900, he again served in this capacity. He was appointed to his present post as Government Advocate in January 1888, but on the occasion of his elevation to membership of the Viceroy's Council in 1899, he resigned the appointment. His term on Council expiring in 1905, Sir Bepin was again appointed Government Advocate and holds the post to this day. In recognition of his public services he received the Companionship of the Order of the Indian Empire in 1898. In 1907, H. M. the King-Emperor was graciously pleased to confer on him the honour of Knighthood.

Mr. GEO. CUNNINGHAM BUCHANAN, M.INST.C.E., Chairman of the Board of Commissioners for the Port of Rangoon, is the son of the late Geo. Buchanan, C.E., of Westminster, grandson of the late George Buchanan, an eminent



Mr. Geo. C. BUCHANAN.

Scottish Civil Engineer of Edinburgh, and grandnephew of the famous Professor Faraday. He was born in London in 1865 and educated privately. He served as a pupil with the Chief Engineer of the River

Tyne Improvement Commissioners. In the year 1886, Mr. Buchanan left England, and for the next ten years was engaged in various prominent engineering works in Venezuela, the Argentine Republic, Canada, Spain and other countries. In 1896 he returned to England and obtained the appointment of Chief Engineer to the Dundee Harbour and Docks on the River Tay, having been selected out of 83 candidates. The post of Chairman of the Commissioners and Chief Engineer to the Port of Rangoon having been created by the Secretary of State for India in the year 1901, Mr. Buchanan was offered and accepted the appointment and proceeded to Burma, arriving to take up his duties in April of the same year. He was sent out with the express purpose of reorganising the Port. The progress made by the Port in the last six years is sufficient evidence of his administrative and technical ability. During this period the Port Trust has profitably expended 130 lakhs of rupees. Mr. Buchanan has also taken an active interest in the municipal affairs of Rangoon and has been a member of the Municipal Committee almost since his arrival. He was largely concerned in the remodelling of the drainage system of the town. He is one of the Administrators of the Victoria Memorial Park. His membership of the Institution of Civil Engineers dates from 1899; he became an associate member in 1891.

Mr. FRANCIS EDWARD CULLING CARR, Acting Deputy Inspector-General of Police, Southern Range, Coimbatore. Son of F. C. Carr Gomm, *late* I.C.S., and now a J. P. of Buckinghamshire. Born 17th March 1858, and received his education at Malvern College and Exeter College, Oxford. He came out to India in 1881, and in May 1886 joined the Indian Police. He rose through the various grades, serving in several districts of the Madras Presidency, as Assistant to Government and as Assistant Inspector-General of Police. In 1896, his services were placed at the disposal of the Government of India, Home Department, for employment as District Magistrate in Coorg, where he remained two years. In March 1898, his services were lent to the Mysore State as Deputy Commis-

sioner and District Magistrate of the Planting District of Kadur. In 1900, he was transferred to the Kolar Mining District where he was employed in the same capacity, and also in charge of the Kolar Gold



Mr. F. E. C. CARR.

sioner and District Magistrate of the Planting District of Kadur. In 1904, he was appointed Inspector-General of Police in Mysore, which appointment he held till he was appointed to his present position in 1908. Mr. Carr is married to the eldest daughter of Sir James Thomson, K.C.I.E., who acted as Governor of Madras, and who has lately been appointed to the India Council.

Mr. CHARLES RAITT CLEVELAND, C.I.E., J.P., I.C.S., on special duty, Central Provinces and Berar. Son of the late Henry Cleveland, Esq., Government Solicitor for Bombay. Born at Bombay in the year 1866. Educated in England at Christ Church, Finchley, and Balliol College, Oxford. Joined the Indian Civil Service, September 9, 1887, and arrived in India, November 28, of same year. His first post was as Supernumerary Assistant Collector at Raipur. In 1889 he was posted to Bilaspur as Assistant Collector, and in 1890 appointed to officiate as Settlement Officer, Raipur. He also acted in the same capacity at Nagpur. In 1891 he was appointed to officiate as Deputy Commissioner and made substantive in this grade in 1897,

having served at Saugor, Nimar, Raipur and Nagpur. He acted as Inspector-General of Police and Jails from 1900 to 1902, and in the latter year went on deputation to Simla in connection with the Police Commission. In the following year he was invested with the Insignia of a Companion of the Indian Empire. He was made substantive in his appointment of Inspector-General of Police, Central Provinces, in 1906. In December 1908 he returned from this appointment and is now on special duty. He received special mention in the report of the Chief Commissioner of the Central Provinces for 1907, in the following terms: "The Chief Commissioner desires to acknowledge very specially the work done by the Inspector-General, Mr. Cleveland, who has now held the appointment for eight years. His services have won the warm approval of successive Chief Commissioners, and his ability, zeal, and



Mr. C. R. CLEVELAND.

strong personality have been one of the chief factors in raising the morale of the police, and co-ordinating them from a number of district services into one force. The advance made in his time has been a very marked one, and the ground gained can never again be lost." In his youth Mr. Cleveland was a keen athlete and a member of the Oxford University Football Team. He was selected for the Varsity All England Team in

all the matches played in 1887. He threw the hammer for Oxford in the Inter Varsity sports of 1887.

Major WILLIAM WESLEY CLEMESHA, M.D., D.P.H., I.M.S., Deputy Sanitary Commissioner, Bengal, was born in 1871 in Lancashire, England, and educated at Ackworth School, and at York; and at Owen's College, Manchester, where he took his professional degree. He was appointed House Surgeon to the Royal Infirmary, Manchester, in 1894 for six months, and then passed into the Indian Medical Service. On arrival in India in 1896, he was posted to military duty for about nine months, when the plague scourge broke out in Bombay and he was appointed one of the Assistant Health Officers of that Port, serving in that capacity for about eight months. Major Clemesha's services, during 1897 and 1898, were divided between Poona and Simla, in the former station on plague duty, and as

Health Officer in the summer seat of the Imperial Government. In the cold weather of 1898-1899 he was again placed on plague duty in Bangalore in the Southern Presidency, which had also become infected with that dire disease, and was transferred later in 1899 to Bengal, as Deputy Sanitary Commissioner, Metropolitan Circle, and Assistant Health Officer of the Port of Calcutta. Plague duties once more claimed him at Patna and Saran until the China War required his return to military duty for about eighteen months.

Major Clemesha was appointed in 1901 permanently to Bengal, in which Presidency he has filled the office of Deputy Sanitary Commissioner, Northern Bengal and Metropolitan Circle, and officiating Sanitary Commissioner. His permanent appointment is that of Deputy Sanitary Commissioner, Metropolitan and Orissa Circle. In March 1908 he was appointed officiating Sanitary Commissioner, Madras.

CENTRAL PROVINCES AND BERAR POSTAL CIRCLE. The administration of the Post Office of India is carried on by a Director-General, two Deputies, and four Assistants forming the Postal Secretariat, the Executive being represented by a Postmaster-General in charge of a Circle. Until recently, Circles were classed as Major and Minor, according to their size and importance, but by amalgamating and redistributing the charges, it has been found possible to abolish Minor Circles. The last of these to disappear was the Central Provinces and Berar Postal Circle: the photograph on this page represents the Head of the Circle and his staff of Divisional Officers. Mr. O'Grady, the Postmaster-General, received his education in the care of the French Fathers of the Order of St. Francis; he served in the field during the Afghan and Burma Campaigns, and as Assistant Director-General of the Post Office.



OFFICERS OF THE CENTRAL PROVINCES AND BERAR POSTAL CIRCLE.

Mr. DONALD WILLIAM GARDEN COWIE, M.A. (Bar.-at-Law), I.C.S. (*Lieutenant-Colonel, Southern Provinces Mounted Rifles*), Inspector-General of Police, Madras. Born in 1865. Educated at Charterhouse (Scholar) and Balliol College, Oxford (Honours in Law). Joined the service in 1885. Served in the Madras Presidency as Revenue Officer and Magistrate, Deputy Registrar of the High Court, Assistant Secretary to Government, and in 1895 was appointed first sole Registrar of the High Court of Judicature at Madras.

In 1898 he returned to administrative work as Collector and Magistrate, serving in the districts of the Nilgiris, Chingleput and Bellary,



Mr. D. W. G. COWIE.

and in 1907 became Inspector-General of Police, Madras. He is greatly interested in volunteering, with which he first became connected at Charterhouse. In 1893 he joined the Madras Railway Volunteers, leaving that corps for the Madras Volunteer Guards in 1895. In 1905 he joined the Southern Provinces Mounted Rifles in which he now holds the rank of Lieut.-Col.

Mr. FRANCIS COLOMB CRAWFORD, District Superintendent of Railway Police, His Highness the Nizam's Dominions. Born at Ashton-Keynes, Gloucestershire, Eng-

land, September 9, 1862. Educated at King Edward VI School, Great Berkhamstead, Hertfordshire. Joined the service in the year 1883, his first appointment being at Secunderabad, as Assistant Superintendent of Police. Three years later he obtained the appointment of Superintendent, Railway Police, H. H. the Nizam's Dominions. He was promoted to the 1st grade in 1892. In this year and the following he was placed in charge of the office of Assistant Superintendent of Police, Secunderabad, for short periods, in addition to his own duties. In 1896 he held the post of Superintendent, Residency Bazaar Police, and Cantonment of Secunderabad, and officiated as Cantonment Magistrate, Secunderabad, in addition to his own duties, in the years 1902-03. He went on leave in 1907, and on his return reverted to his present position as District Superintendent of Police (Superintendent of Railway Police, H. H. the Nizam's Dominions). He draws the pay of Deputy Inspector of Police, Central Provinces. Mr. Crawford is a keen sportsman and takes interest in sport generally, but more particularly in athletics. He is a first class sprinter himself and won the 100 yards at Bombay four years in succession, 1883, 1884, 1885 and 1886, where he was credited with even time, 10 seconds. He also took the high jump and long jump championships at Bombay in one year. He has acted for twenty years past as starter to the local Racing Club, Hyderabad.

Mr. LIONEL DOUGLAS CROSS (R. I. E. College), Executive Engineer, Public Works Department, Bhagalpur Division. Born on the 9th July 1871. Joined the service at home on 1st October 1900 and came to India in November of the same year. While in England he had two years' practical training on water-works in South Wales. Previous to his above appointment Mr. Cross was employed on railway survey and construction in the Punjab from 1895 to 1897, and also served as senior Assistant Engineer on the construction of the Uganda Railway, British East Africa, from which service he resigned in 1900. On arriving in India in 1900 he was appointed Assistant Engineer on

the Bengal Northern Circle, Darjeeling Division, where he remained for a couple of years. In 1904, after furlough, he was appointed to the Sone Circle, Arrah Division (Dehree Workshops), as Assistant Engineer. For a short time he officiated as Executive Engineer, Acquapada Jajpur Division, and returned to the Sone Circle, Arrah Division, in the same year, whence he was transferred to Sikkim under the Political Officer. He took charge of the Agion Sub-Division on 28th November 1904. In December of same year he assumed charge as State Engineer, Sikkim State. In 1905 he reverted to the Northern Circle, Darjeeling Division. In 1905-06 he officiated as Executive Engineer, Central Circle, 2nd and 3rd Calcutta

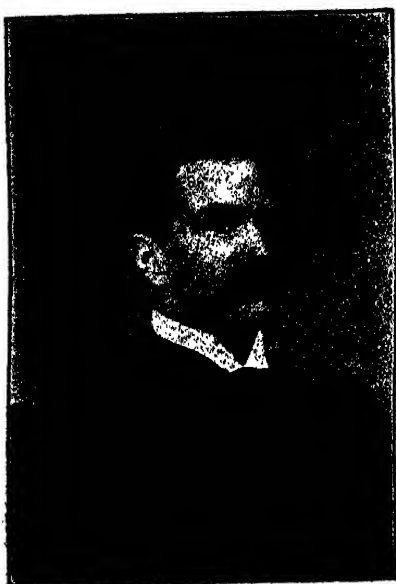


Mr. L. D. CROSS.

Divisions. Mr. Cross took furlough in 1906, and in 1907 on his return, was appointed Executive Engineer of the Bhagalpur Division, and posted to Bhagalpur.

Reverend Dr. P. CULLEN (retired Lieutenant-Colonel, I.M.S.), M.R.C.S., & L.M. (Lond.), M.D., M.C. (Aberd.), D.P.H. (Edin.), Assistant Chaplain, Jubbulpore. Born at Kurnal in Upper India in the year 1835, and educated partly in India and subsequently in London and at the Aberdeen University. Joined the Indian Medical Service

in 1859 and arrived in India the same year. His first post was with the 19th Punjabees (now 27th). He accompanied this regiment to China, for which service he received the medal. On return to India he marched in medical charge to Philour. In 1862 he was transferred to civil employ and appointed to Nagpur (at that time known as the assigned districts), in medical charge of 1st Nagpur Irregulars. In 1863, he was appointed Civil Surgeon, Damoh, C. P., where he also served as Superintendent of the Jail and Honorary Magistrate, after passing examinations in language and Criminal Law. He was after three years transferred to Wardha as Civil



Rev. P. CULLEN,

Surgeon and Superintendent of Cotton Affairs. He was the first to introduce cotton presses to Hingunghat. After furlough he was appointed Civil Surgeon and Superintendent, Central Jail, Hoshangabad, where he served for seven years. Held medical charge of 32nd M.I. during November 1873, and medical charge of 22nd Regiment M. I. from February 1873 to April 1874, and again during May and June 1874, in addition to Civil medical charge, which latter duty he discharged for seven years. Transferred to Khundwa in 1875, served fourteen years. In 1873, appointed President of Municipal

Committee, and in 1884 a Justice of the Peace, and finally in 1889 to Narsinghpur, where in 1893 he completed his service and retired to settle in Jubbulpore after 35 years' consecutive service. In 1900 he was ordained a priest by Bishop Welldon at Calcutta Cathedral, and appointed Honorary Assistant Chaplain of the Church of England, Jubbulpore. He acted for some time on the Committee and as Secretary to Christ Church School, Jubbulpore.

Mr. J. E. ALEXANDER D'CRUZ, Executive Engineer, Improvement Trust Board, Mysore City. Son of the late John Alexander D'Cruz, late uncovenanted Assistant Chief Engineer's office, Madras. Born in Madras in 1860. Educated at San Thome Seminary, and Presidency College, Madras. He joined the British Government service in 1881 and was for a short period employed in the office of the Inspector-General of Registration, Madras. In 1883 he entered the College of Engineering, Madras, and passed the Assistant Civil Engineer's test in the following year. In 1885 he passed the B. C. E. Examination and joined the Madras Survey Department as Sub-Assistant Superintendent, which appointment he held till 1889 when he was made Assistant Instructor, College of Engineering, Madras. He was appointed at the same time Lecturer, Victoria Technical Institute, Examiner P.W.D. Accountant's Test, and Examiner for Assistant Superintendents of Survey Entrance Examination. He remained there for three years and then proceeded to Tinnevely to join the District Board as Assistant Engineer. In 1894 he entered the Mysore Government service. He has served in many parts of the Mysore State, and was specially employed on the Cauvery Power Scheme where he constructed the whole of the head-works and channels with incidental masonry works. In 1908 he invented and patented a Flush Tank and Cattle Truck combined for which he received a bonus of Rs. 2,000 from the Mysore Government. These are now in use in the cities of Bangalore and Mysore. In 1902 he was delegated to write a monograph on wood-carving, for which he received the thanks of the

Mysore and British Governments and of Sir George Watt. He was a member of the Mysore City Improvement Committee in the same year. In the following year he was Secretary to the Industrial School at Mysore, all in addition to his other duties in connection with the schemes for the Mysore city improvements. He received a souvenir in the shape of a watch bearing the inscription "Presented by His Highness the Maharaja for services during Royal visit, 1906" with a letter expressing appreciation of his services in connection with the reception of T.R.H. the Prince and Princess of Wales at Mysore. Mr. D'Cruz is the author of a pamphlet



Mr. J. E. A. D'CRUZ.

on "Theodolite and Higher Surveying," "Aid to Computations" and "Surveying Levelling for Students."

Mr. EDWARD ADOLPHUS DE BRETT, I.C.S., Political Agent, Raipur, Central Provinces. Eldest son of Major-General H. de Brett, who served for 32 years in the Indian Army. Born at Mian Mir in the year 1867. Educated at first privately, then at Winchester and New College, Oxford. Joined the Indian Civil Service, September 5, 1888, and arrived in India, November 23, in the same year. His first post was as Assistant Commissioner, Wardha, and he served in this grade at Raipur and

Bilaspur till, in 1891, he was appointed to officiate as Deputy Commissioner and posted to Nagpur. He served as Settlement Officer at Narsinghpur from 1891 to 1894, and at Saugor from 1895 to 1897,



Mr. E. A. DE BRETT.

being temporarily attached in 1896 to the office of the Commissioner of Settlements and Agriculture. In 1897 his appointment as Deputy Commissioner was made substantive and he served at Narsinghpur, Mandla and Jubbulpore till 1898, when he was appointed to officiate in charge of the current duties of the office of the Commissioner, Jubbulpore Division. In 1898-99 he took a year's furlough, and returning to duty in October of the latter year served as Deputy Commissioner at Narsinghpur and Raipur till 1901, when he took furlough on medical certificate for six months. In 1902 he returned to duty and was appointed Deputy Commissioner of the Second Class, serving at Chanda, Nagpur, and Hoshangabad. In 1905 he was again on furlough, and on his return in 1906 was posted to Saugor. In the following year he was appointed Political Agent, Chhattisgarh Feudatory States, Raipur.

Mr. HENRY VERNON DRAKE-BROCKMAN, I.C.S., M.A., LL.M. (Cantab.), Bar., at-Law, J.P., Judicial Commissioner, Central Provinces. Born at Madras, November 8, 1865.

Educated at Charterhouse School and St. Peter's College, Cambridge, joined the Indian Civil Service 1885, and arrived in India December 10, 1886. He served as Supernumerary Assistant Commissioner at Nagpur, Raipur and Saugor, till made substantive in 1890, and appointed to officiate as Deputy Commissioner. He was Under-Secretary to the Chief Commissioner in 1890 and 1892, and in the latter year was appointed to officiate as Commissioner of Excise, etc. In 1894 he was appointed substantive Deputy Commissioner and Commissioner of Excise. In 1896 he was posted to the Nerbudda Division as Divisional Judge and made substantive in this appointment in the following year. In 1903 and again in 1905 and 1906 he acted as Judicial Commissioner, Central Provinces, an appointment in which

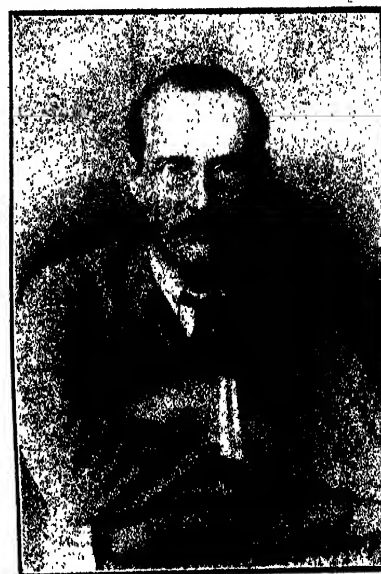


Mr. H. V. DRAKE-BROCKMAN

he was confirmed in 1906 and has held ever since. In 1908 Mr. Drake-Brockman was Chairman of the Executive Committee of the Provincial Branch of the Indian Famine Charitable Relief Fund.

Mr. EDWARD DYCE DUCKWORTH, B.A., I.C.S., District Judge, Mandalay, Upper Burma, was born in the year 1875 at London and received his education at Marlborough College, and afterwards proceeded to the University

of Oxford, his college being Pembroke College at that University. He left college with the degree of Bachelor of Arts. He was successful in the competitive examination for the Indian Civil Service



Mr. E. D. DUCKWORTH.

in 1899 and joined the service in October of the same year. He came out to the East in December 1899 and his first appointment was as Assistant Commissioner at Pegu. In the following six years he served at Thayetmyo, Salin, Rangoon and other districts, in 1902 officiating for one year as Private Secretary to His Honour the Lieutenant-Governor of Burma. In July 1905 he was appointed to officiate as District Judge at Prome, Tharrawaddy, and Mandalay, for a short period. In September 1906, as Assistant Commissioner he was appointed to officiate as District Judge and Additional Sessions Judge, Mandalay.

Mr. MAURICE WALTER FOX-STRANGWAYS, I.C.S., C.I.E., Financial Commissioner, Central Provinces and Berar, Nagpur, son of the late Colonel W. A. Fox-Strangways, R.A. Born at Aldershot, England, in the year 1862. Educated at Charterhouse School and Balliol College, Oxford. Joined the Indian Civil Service in 1882 and arrived in India in November of that year. He served as supernumerary Assistant Commis-

sioner till 1887, when he was appointed to the grade of Assistant Commissioner, and later in the same year Settlement Officer. In 1890 he was appointed to officiate as Deputy



Mr. M. W. FOX-STRANGWAYS.

Commissioner. In 1897 he was appointed to act as Chief Secretary to the Chief Commissioner. The officiating appointment of Commissioner was bestowed on him in 1900, and two years later he was confirmed in this grade. In December 1908 he received his present appointment as Financial Commissioner, Central Provinces and Berar.

The Hon'ble Mr. STUART MILFORD FRASER, I.C.S., C.I.E., British Resident to the State of Mysore, and Chief Commissioner, Coorg. Born on 2nd June in the year 1864 and educated at Bundell's School, Tiverton, and Balliol College, Oxford. Joined the Indian Civil Service in the year 1884, came to India in November of the same year and was appointed to the Bombay Presidency, where he served at various centres as Assistant Magistrate and Collector till 1889 when he was selected to act as Tutor and Guardian to the young Maharaja of Kolhapore and the present Thakore Saheb of Bhavnagar. Six years later he was appointed Judge and Sessions Judge at Belgaum, but in 1896 he again reverted to the Political

Department as Tutor and Governor to the young Maharaja of Mysore. In this appointment he gained an intimate knowledge of the Mysore State. In the year 1903 Mr. Fraser was placed on special duty in the Foreign Department, of the Government of India, and subsequently rose to Deputy Secretary of that Department. During the absence of Sir Louis Dane, for a twelve month from October 1904 to October 1905, Mr. Fraser officiated as Secretary in the Foreign Department. He was also deputed to serve as British Commissioner in the matter of the Anglo-Tibetan negotiations with the Chinese Plenipotentiary appointed by the Chinese Imperial Government to Calcutta. On the retirement of Sir James Bourdillon,



The Hon'ble Mr. S. M. FRASER.

I.C.S., K.C.S.I., in November 1905. Mr. Fraser received his present appointment as British Resident to the Mysore State.

Mr. ROBERT RICHARD GALES, M.INST.C.E., F.C.H. Born at Littlehampton in the County of Sussex, England, on 31st October 1864. He received his technical education at Coopers Hill, and passing out at the head of his year was made a Fellow of the College and appointed to the Railway Branch of the Indian Public Works

Department in the year 1886. Previous to proceeding to India he received a course of practical training on the famous Forth Bridge, then under construction. In December



Mr. R. R. GALES.

1887 he arrived in India and joined the Bannu Railway Survey. In October of the following year he was posted to the Chenab Bridge at Shershah under Mr. J. R. Bell, the well-known Engineer. In May 1890 he was appointed to take executive charge of the Mianwali-Mari Railway Extension and superintended the construction of that line. Subsequently he was engaged on the survey and construction of the Mari-Attock Railway, whence he was transferred to the North-Western Railway to take charge of the Special Bridge Division comprising the reconstruction of the Ravi and Jhelum Bridges. Whilst on that Railway he also reconstructed the Haroo and Chablat Bridges. In October 1895 he was appointed Assistant Manager of the North-Western Railway and with an interval of furlough was employed in management for the next five years, during which he was for a year Assistant Manager on the East Coast Railway, and Deputy Manager of the Eastern Bengal State Railway for a similar period. After a further interval of furlough he was transferred to the Allahabad-Fyzabad Railway and

was appointed Engineer-in-Chief of the Curzon Bridge over the Ganges at Allahabad in the year 1903. He was in charge of this great work till its completion in December 1905, and was awarded a Telford premium for his paper on its construction read before the Institution of Civil Engineers in London. After conducting a reconnaissance for the Bombay-Sind Railway Connection he became Engineer-in-Chief of the Coonoor-Ootacamund Railway in 1906, and in 1908 was appointed Engineer-in-Chief of the great project for the Lower Ganges Bridge at Sara.

Mr. ARTHUR MARIO AGRI-COLA COLLIER GALLETTI, I.C.S., Under-Secretary to Government in the Public Department, Madras. Eldest son of Colonel Count Galletti di Cadilhac, member of the Parliament of Italy, who married a daughter of the late Lord Monks-well. Born in England in the year 1877 and educated at Cheltenham College, and Trinity College, Oxford, where he took first class honours in *Litteræ Humaniores*, Final



Mr. A. GALLETTI.

Schools. In October 29th, 1900, he joined the Indian Civil Service and proceeded to India in December of the same year. His first post was at Coconada as Assistant Collector, and Magistrate and Government

Agent, Godaveri. He served in the same capacity also at Rajah-mundry and Ellore. In April 1903, his services were placed at the disposal of the Government of India, Home Department, for legislative training at Simla. He remained at the seat of the Supreme Government for six months and then was appointed to officiate as Assistant Secretary to the Government of Madras. He acted in this post till October 1905, during the latter part of which service he also acted as Under-Secretary to the Revenue Department. In 1906 he was granted special leave. In May of the same year Mr. Galletti was transferred as Under-Secretary to the Madras Government, Revenue Department, and also officiated as Under-Secretary to Government, Public Department. In 1907 he officiated for a short period as Chief Secretary. Mr. Galletti's literary works are Edition of K. Viresalingam's "*Vinodya Tarangini*" with translation, 1902; "*The Madras Lunacy Manual for Magistrates*, 1906;" "*The Madras Ecclesiastical Manual*, 1906."

Mr. H. P. GIBBS, M.A.I.E.E., M.I.E.E., Chief Electrical Engineer to the Government of Mysore. (*Captain, Bangalore Rifle Volunteers*.) Born at Westfield, Mass., U.S.A., on 1st January, 1871. Educated at Westfield Public School. Later he attended a business college at Worcester, and studied Electrical and Mechanical Engineering through the medium of home study, International Correspondence Schools and Special classes. Mr. Gibbs had the misfortune to lose his father when he was twelve years of age, and as the estate was considerably entailed, since the age of fourteen, he has entirely supported himself by his own exertions. He had a year's experience of general telephone work at Adams, Mass., U.S.A., and was for three years at the Washburn and Moen Wire Works, Worcester, U.S.A., where he was employed on general and special testing work both mechanical and electrical. In the year 1892 Mr. Gibbs joined the General Electric Company and went through their expert course. Subsequently Mr. Gibbs worked as a general electrical expert and constructing engineer

for about seven years in the United States and eighteen months in Mexico. The General Electric Company sent him to India where he became Chief Electrical Engineer of the Cauvery Power Scheme in



Mr. H. P. GIBBS.

succession to Mr. Ekstrom. On the 16th March 1903 the Government of Mysore secured Mr. Gibbs' services and appointed him Chief Electrical Engineer to the State. In August of the same year the Mysore Government sent him on deputation to the United States of America in connection with the second installation of the Cauvery Power Scheme. He returned in December. He carried out the work in connection with this scheme with such skill and despatch that he was specially thanked by Government on 15th July 1904. Again in 1905 the special thanks of the Mysore Government were conveyed to Mr. Gibbs and recorded in their proceedings dated 20th February in appreciation of the very efficient and expeditious manner in which he had done his work in connection with the second installation of the Cauvery Power Scheme. On a third occasion on 7th June 1906 he earned the thanks of the Government by his care and forethought bestowed on the various arrangements connected with the reception of Their Royal Highnesses the Prince and Princess of Wales at Mysore

MAHARAJA'S OFFICE

and Bangalore. In July 1906 on the expiry of his original agreement Mr. Gibbs was re-engaged as Chief Electrical Engineer to the Government of Mysore. He designed and carried out the entire scheme for the supply of electric lighting and power for Bangalore city, and he is at present engaged on a similar scheme for Mysore city. He has also carried out electric installations at the palaces at Mysore and Ootacamund. In 1905 Mr. Gibbs was appointed Consulting Engineer to the Kolar Gold Fields Mining Companies for whom he has designed and carried out a very large electrical winding scheme. He is a member of the American Institute of Electrical Engineers, New York, and of the Institute of Electrical Engineers, London. Mr. Gibbs is an 18th degree Mason, Mark Mason, Royal Arch, Royal Ark Mariner and Excellent Master. P. M. Lodge, Southern Cross, S. C. Oorgaum. Past Master Lodge United Service, E. C. Bangalore. Wor. Master, Southern Brotherhood, E. C. Bangalore (holding for a time the Mastership of these two Lodges simultaneously). The latter Lodge has been founded by him with the object of raising Masonry to a higher stand at Bangalore. He pays attention to Volunteering and holds a commission as Captain in the Bangalore Rifle Volunteers.

Hon'ble Mr. MURRAY HAMMICK, C.S.I., C.I.E., I.C.S., Chief Secretary to the Government of Madras. Youngest son of the Rev. Sir St. Vincent Hammick, *Bart.* Born in the year 1854 (11th May). Educated at Charterhouse and Balliol College, Oxford. Mr. Hammick entered the Indian Civil Service in 1875 and served in the early part of his career in Bellary and Salem Districts and Coorg. He was Assistant and Under-Secretary to Government in 1883-1886; in the latter year he was appointed acting Postmaster-General, and in the following year was appointed Secretary to the Commissioners of Land Revenue in which post he remained for five years. In 1893 he was appointed Magistrate and Collector, S. Arcot, and in the following year Inspector-General of Police, in which capacity he was

employed till the year 1899, when he was appointed Plague Commissioner for Madras. In 1902 he was made a member of the Madras Legislative Council and in 1905 he acted as Home Secretary to the Government of India. In June



HON. MR. M. HAMMICK.

1906, he was appointed Chief Secretary to Government and later officiated as Member of the Executive Council, Madras. The Honourable Mr. Hammick is a distinguished Freemason and his record is—District Senior Grand Warden, District Grand Lodge, Madras; District Grand Senior Warden, District Grand Lodge of Mark, Madras; P. M., Faith, Hope and Charity, 1285 E. C.; P. M., Lodge Russell, 157 E. C.; P. M., Royal Arch Chapter Excelsior. He is author of the Madras Municipal Manual, Madras Presidency, 1903.

Mr. SAMUEL CHARLES HILL, B.A., B.Sc., Director of Public Instruction, Central Provinces and Berar. Born at Berhampore, India, in the year 1857. Son of the late Reverend Samuel John Hill, London Missionary Society. Educated at the school for sons of Missionaries, Blackheath, England, and at University College School, London, afterwards attending University College, London, from which he took the B. A. and B. Sc. degrees. Upon

graduating he took up tuition work and subsequently came to India in 1881, joining the Indian Educational Service, Class IV, at Dacca, in Bengal with the grade of Professor. In 1885, he was appointed to officiate as Inspector of Schools, E. C. and two years later joined the Krishnagarh College, Nadia, as Principal. In 1890 he was again appointed to officiate as Inspector of Schools in the Behar Circle and in this capacity subsequently served in other Circles. He was appointed to officiate as Principal of the Calcutta Madrassah and Professor in the Presidency College in 1898, and in the following year as Director of the Imperial Records and Library, ex-officio Assistant Secretary to Government of India, Home Department, and Patent Secretary, Revenue and Agriculture Department, and was made substantive in the same appointment in 1900. Four years later he received his present appointment as Director of Public Instruction, Nagpur. In 1902-04, while on furlough Mr. Hill visited on special deputation the leading schools of Great Britain, France and

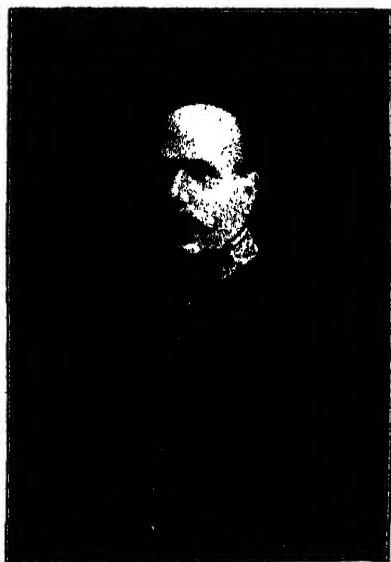


MR. S. C. HILL.

Germany, in order to investigate the latest developments of modern educational systems, preparatory to being appointed Director of Public Instruction. His literary works include a Life of Claud Martin, "Three

Frenchmen in Bengal," and Early Records of the Foreign Office, the latter published for the Government of India. Also a "List of Europeans resident at Calcutta at the time of the Blackhole Tragedy," and a "History of Bengal from 1756 to 1757," which was published for the Government of India by John Murray, London.

Mr. DAVID BAYNE HORN, C.I.E., M.I.C.E., F.C.H., and a former Fellow of the Calcutta University, was born in 1851, and joined the service of the Government of India



Mr. D. B. HORN.

in 1874, from the Royal Indian Engineering College, Coopers Hill. His first appointment was as Assistant Engineer on the Western Sone Survey Division, Bengal. He joined the Public Works Secretariat as Assistant Secretary in 1878, serving till 1880, when he was appointed to the Circular and Eastern Canals Divisions, where he remained till 1883, meanwhile attaining the grade of Executive Engineer. In February 1883 he was deputed on special duty to Tipperah, to inspect and report on the Goomtee embankment. In the year 1884 his services were lent to the Commissioners of the Port of Calcutta, and he was appointed Resident Engineer of the new dock works at Kidderpore. In 1885 he was appointed Under-Secretary in the P. W. Secretariat, and was a

member of the Public Works Accounts Committee from February to March 1889. He served as Executive Engineer of the Buxar, Brahmani-Baiturni, and Circular Canals Divisions till 1895, when he attained the grade of Superintending Engineer, and was posted to the South-Western Circle, where he remained till appointed Officiating Chief Engineer and Secretary to Government in the Irrigation Branch in 1899. In 1900 he officiated as Secretary to Government, Buildings and Roads Branch. After a spell of special duty in 1901 he received the post of Chief Engineer and Secretary to the Government of Bengal, Irrigation Branch in 1902, and was also appointed a Member of the Bengal Legislative Council. In 1903 he was promoted to the grade of Chief Engineer, 1st class, and finally retired from the service in 1906. For his services he was made a Companion of the Most Eminent Order of the Indian Empire on 1st January 1905.

Mr. PATRICK HANNYNGTON, Superintendent of Police, Bangalore, and Mysore Railway Magistrate. Born in Malabar District,



Mr. P. HANNYNGTON.

Tellicherry, in the year 1871. Educated at private school in England and public school, Ireland. Joined the Indian Service on 31st Janu-

ary 1891, and was posted to Tinnevely as Probationer and Inspector of Police. In the following year he was appointed to act as Assistant Superintendent and posted to Malapuram, in which capacity he also acted at Kimedi and Kistna. In July 1895, he was gazetted as Assistant Superintendent, 4th grade, and posted to the Ganjam Division. He served in this grade at Parlakimedi, Parvartipur, Narasapatam, officiated as Superintendent at Kistna in 1898, and afterwards at Anantapur and Bellary, in which latter station he received the substantive appointment of Superintendent. In 1906, his services were placed at the disposal of the Resident of Mysore, and he was appointed Superintendent of Police at Bangalore. He is also Vice-Chairman of the Bangalore Municipality, and a member of the Southern Provinces Mounted Rifles.

Major EDMUND MORITZ ILLINGTON, F.R.C.S., Edin. (1904), D.T.M., Liverpool (1905), M.R.C.S.E., L.R.C.P. (England), I.M.S., Civil



Major E. M. ILLINGTON.

Surgeon, Ootacamund, was born in England June 1870, and educated at Berkhamstead School, Hertfordshire, and at St. Mary's Hospital, Paddington, where he received his first medical training for four years, after which he was House

Surgeon at the Royal Sea Bathing Hospital at Margate, Kent, England, where he served for three years. He joined the Military service in 1895, and came to India in the same year, and was posted on Military duty at Mandalay, Burma, and served in various districts, also in India until the year 1898. In 1897 he was engaged on active service with the Malakhand Field Force, where he obtained medal and clasp. During his Military service he was also engaged on Plague duty at Kondapalli and Jhelum, and served as Civil Surgeon and Superintendent of Jail at Jhelum for a short period. In November 1898 he was placed in charge of Plague inspection station at Jalarpet, and was made Chief Medical Officer 1st January 1899, serving in Malabar, Cuddalore, and Cochin until May 1900, when he was appointed District Medical and Sanitary Officer, Ganjam, and Superintendent of Jail, Berhampur, at Cochin, in January 1907, he was appointed Civil Surgeon at Ootacamund. He was promoted to Major on 29th January 1907. He has also held the appointment of Clinical Assistant at the Samaritan Free Hospital for Women, London, and the Hospital for Sick Children, Great Ormond Street

Mr. GUSTAV HERMAN KRUMBIEGEL, Superintendent, Government Gardens and Museum, Mysore State. Born at Lohmen near Dresden in the year 1865. Educated at Wilsdruff and Dresden in the German Empire. He served his horticultural apprenticeship at Pillnitz, the fine summer residence of the King of Saxony. He obtained employment in 1884-85 in the Agricultural and Fruit Department of the Schwerin (Mecklenburg), Royal Garden, and from 1885 to 1887 was employed at Hamburg, principally on work connected with landscape gardening. He went to England in 1888 and at first worked in Hyde Park, London, propagating, designing and laying out flower beds. In December of the same year he entered the Royal Botanical Garden at Kew, where he attended lectures and passed in all the subjects, Systematic Botany, Economic Botany, Geographical Botany, Physics, Chemistry, and in

1890-93 he obtained an appointment on the staff in charge of the Propagating Department, throughout this period he pursued his studies attending the South Kensington University Extension Lectures, obtaining certificates and prizes in Geometry and Perspective Drawing. He came out to India in 1893 under appointment from the Secretary of State to take charge of the Baroda State Gardens. These gardens some twenty-five in number covering an acreage of about 2,000 acres have mostly been laid out by Mr. Krumbiegel. The principal gardens lie around the various palaces, the parts immediately adja-



Mr. G. H. KRUMBIEGEL.

cent to the places being treated in high class ornamental style, and the outlying areas laid out in effective landscape style. In addition and as an adjunct to landscape gardening Mr. Krumbiegel has done much in carrying out elaborate architectural work, such as fountains, bridges, pavilions, and even large buildings, chiefly at His Highness the Gaikwar's estate at Ootacamund in the Neilgherry Hills, which was completely laid out and built by him. In January 1908, he was appointed to his present post in charge of the State Gardens at Mysore and of the Museum. He has completely reorganised the garden department and has greatly improved the gardens themselves, both

as pleasure resorts and educational establishments, besides thoroughly taking up experimental and economic work in connection therewith.

Lieut.-Col. WILLIAM BYAM LANE, I.M.S., Inspector-General of Prisons, Nagpur, Central Provinces. Born at Antigua in the West Indies in the year 1866 and educated at Christ's Hospital, London. He then went to Germany to the Neuenheim College, Heidelberg, where he pursued his studies for a year and a half, after which he returned to England and was for five years attached as a student to St. Bartholomew's Hospital, London. He passed out in 1888, joining the Indian Medical Service in the same year. He arrived in India on March 26th, 1889, after serving for a time at the Royal Victoria Hospital at Netley, England. His first appointment in India was to the Station Hospital, Allahabad. In 1889, he was placed in Medical charge of XI (P. W. O.) Bengal Lancers, now XI (King Edward's Own) Bengal Lancers. In 1890, he was transferred in the same capacity to the 45th Sikhs. In 1891, he saw active service with the Hazara Field Force. He served also with other regiments, the 21st Punjab Infantry, the 14th (P. W. O.) Sikhs, 3rd Punjab Cavalry, and No. 4 Hazara Mountain Battery and 23rd Pioneers. At Waziristan he was in charge of the A. 20 Native Field Hospital and served with the Chitral Relief Force with the 23rd Pioneers in 1895. In 1897, 1898 and 1899 he was during the whole Frontier Expedition attached to the Base Hospital (No. 4 Native General Hospital) at Nowshera. In 1899, he officiated as Civil Surgeon and Superintendent, Central Jail, Montgomery, and in 1902, was made substantive in this post, his services having been placed temporarily at the disposal of the Punjab Government. In 1903, his services were placed at the disposal of the Chief Commissioner, Central Provinces, and he was posted to officiate as Superintendent, Central Jail, Jubbulpore. After combined leave and furlough he was appointed Inspector-General of Prisons, C. P., Nagpur, in 1905. He holds the Hazara Medal and Clasp, 1891. The Waziristan Clasp, 1894-95; and the Chitral Medal and Clasp.

Mr. HENRY MONTAGUE LAURIE, M.A. (Oxon.), Bar-at-Law, I.C.S., Commissioner, Nerbudda Division, Hoshangabad, Central Provinces. Born in England in the year 1865. Educated at private schools, subsequently in Germany and at Balliol College,



Mr. H. M. LAURIE.

Oxford, where he took his B.A. degree in 1887. Was called to the Bar at the Middle Temple in the same year. Joined the Indian Civil Service, September 21, 1886, and arrived in India December 3, 1887. Served in Assistant Commissioner's grade until 1895, acting as Registrar, Judicial Commissioner's Court, and as Under-Secretary, officiating as Deputy Commissioner, Balaghat, 1892, and as Deputy Commissioner, Bhandara, 1893, until he was appointed substantive Deputy Commissioner in 1895. He served in this grade at Raipur till 1899, when he went on furlough. On his return he was appointed to act as Divisional Judge, Hoshangabad, and was appointed 2nd Secretary to Chief Commissioner in 1900 and Chief Secretary in 1903. In 1905, he was appointed to officiate as Commissioner, Chhattisgarh Division, and held charge of the office of Political Agent, Chhattisgarh Feudatories, in addition, from June 2, to July 15, 1905. He was placed

on special duty in connection with the organisation of the Drug District in 1905, and was appointed Political Agent, Chhattisgarh Feudatories (substantive), early in 1906. In the same year he officiated as Commissioner, Chhattisgarh Division, in addition. In 1907, he officiated in the same capacity, Jubbulpore. In 1908, after leave he was appointed to his present post of Commissioner, Nerbudda Division.

Mr. JOHN BONFOY LEVENTHORPE, A.M.I.C.E. (R. I. E. College), Chief Engineer and Secretary to the Chief Commissioner, Public Works Department, Nagpur, Central Provinces. Born in England, February 18, 1855. Educated at Marlborough College and Royal Indian Engineering College, Coopers Hill. Joined the Indian service in 1877 and underwent a year's course of practical training in England, after which he proceeded to join his appointment in India, arriving in the year 1878. His first post was as Assistant Engineer, Hoshangabad Division. Up to 1885 he served in this capacity at several stations.



Mr. J. B. LEVENTHORPE.

In the latter year he received promotion to Executive Engineer and was posted to the Nagpur Division, subsequently serving in the same capacity until 1902, when he

was appointed Officiating Secretary to the Chief Commissioner, Nagpur, in the Department of Public Works, and also officiated as Superintending Engineer. In the latter part of the year 1903 he was made substantive in the Superintending Engineer's rank and posted to the East Circle, retaining this position until he was appointed to his present post of Chief Engineer and Secretary to the Chief Commissioner, P. W. D., at Nagpur.

Major DONALD JOHN CAMPBELL MACNABB, I.A., Deputy Commissioner, Mandalay. Born 24th June 1864. Educated at Sandhurst. After passing out of College, he joined the Highland Light Infantry and came out to India. From this regiment he joined the Indian Staff Corps and was posted to the 7th Bengal Infantry. In the year 1887, he was appointed Assistant Commissioner at Yowun, Burma, and served in this capacity in various districts till 1891, when he took furlough on medical certificate for three years, joining the service again in 1894, in which year he was posted as Assistant Commissioner to Kindet and Maubin. In these districts he also officiated as Deputy Commissioner. He was appointed Deputy Commissioner at Seoni in 1897 and served at Raipur from 1899 to 1902, when he was transferred to Toungoo also as Deputy Commissioner for a short period. In December 1904 he was transferred to Sagaing and again in 1906 to Mandalay. In April 1908 he was appointed officiating Commissioner, Meiktila. Major MacNabb is the author of a work on "The Chins, their manners, their customs and their country," and also of "The Handbook of the Hako-Chin Dialect."

Mr. W. McHUTCHIN, M.I.C.E., Chief Engineer and Secretary to the Government of Mysore, Public Works Department and Railways. Son of the late Thomas M. McHutchin, Madras Staff Corps, and grandson of the late John McHutchin, who was Clerk of the Rolls of the Isle of Man from 1821 to 1847; born at Mercara, Coorg, in the year 1854; educated at Rossall, Lancashire; passed the examination for Assistant Engineer

at the Engineering College, Madras, and appointed to the P. W. D. of the Government of India, October 1874. Was posted to Mysore under Colonel R. H. Sankey, R.E., Chief Engineer, and served as Assistant Engineer at Bangalore and Shimoga till 1877, when he was transferred to the Indian State Railways list, and posted to the Mysore State Railway as Assistant Engineer. Among other works which he carried out while on this railway were the railway bridges over the branches of the Cauvery at Seringapatam. In 1881 he was appointed officiating Executive Engineer, and placed in charge of the Bangalore-Tiptur Railway Surveys and Construction; in which appointment he was confirmed in 1882. From 1882 to 1887 he constructed the line from Bangalore to Gubbi; and completed the surveys, plans, and estimates for the lines from Gubbi to the Mysore Frontier at Harihar; Bangalore to the Mysore Frontier near Hindupur, on the Ban-



Mr. W. McHUTCHIN.

galore-Guntakal branch; and Mysore to Nanjangode. He was for a time in 1883 placed in charge of the office of the Consulting Engineer to the Mysore Government in the Railway Branch; and was also for some time Manager of the open lines of the Mysore State Railway. Upon the Mysore State Railway being hypothecated to the Southern Mahratta

Railway in 1887, he was for a short time placed in charge of the Bangalore Division of the P. W. D. and earned the thanks of the Government of India for valuable services rendered to the Indian and Colonial Exhibition of 1887. His services were replaced at the disposal of the Government of India in June 1887, and he was appointed as Executive Engineer on the Tirhoot State Railway; and afterwards on the Assam-Bihar State Railway, where he continued to serve till June 1889; during this period he began and completed the construction of the Kosi extension of the Tirhoot State Railway, and the Kosi extension of the Assam-Bihar State Railway. His services were then again placed at the disposal of the Foreign Department for employment under the Mysore Durbar, and he was appointed Assistant Chief Engineer and Assistant Secretary, Mysore P. W. D., and posted to Bangalore. In 1893 he, for a time, was appointed officiating Chief Engineer and Secretary, P. W. D. and Railways; and in 1896 was promoted from Executive to Superintending Engineer. In 1900 he received the thanks of the Mysore Durbar for the successful and satisfactory completion of the Marriage Pavilion erected on the occasion of the wedding of His Highness the Maharaja of Mysore. In 1904 he was appointed to his present post of Chief Engineer of Mysore and Secretary to Government, P. W. D. and Railways. In 1905 he attained the grade of Superintending Engineer, 1st class, Imperial Railway list, and has several times received temporary promotion to Chief Engineer on this list. Among other distinctions Mr. McHutchin has received the thanks of the Government of Mysore for his services in connection with the water-supply to Bangalore city and also in connection with the Cauvery Electrical Power Scheme with special notes. "Mr. McHutchin's work in connection with Hydraulic Engineering was invaluable and the assistance rendered by him generally was worthy of an officer of his experience and reputation." He also earned the thanks of the Mysore Government for his care and forethought in the supervision of the arrangements made in connection with the reception of their

Royal Highnesses the Prince and Princess of Wales when they visited Mysore in 1906.

Mr. HUGH ERNEST McCOLL, I.C.S., Divisional Judge, Bassein. Born in the year 1871 in France. He received his education at Clifton College, England, and at Christ's College, Cambridge. He joined the

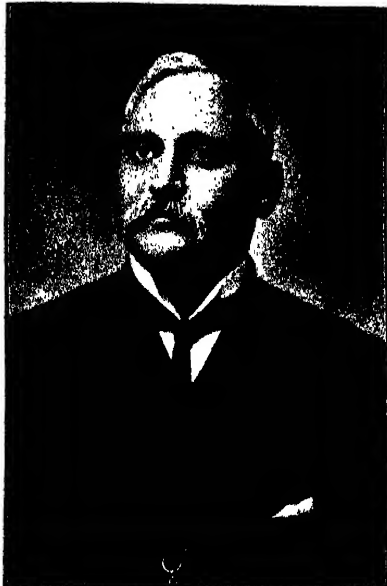


Mr. H. E. McCOLL.

Indian Civil Service in the year 1891 and in the same year came out to Burma. His first post was at Henzada where he was appointed Assistant Commissioner in December 1891. In the same capacity he served in various districts and also officiated as Deputy Commissioner. He was appointed District Judge at Moulmein in the year 1893 and promoted to Divisional Judge at Moulmein in 1905. In 1907 he was appointed Divisional Judge at Bassein, the post he now holds.

Mr. RAJESVARA MITRA, B.A., A.M.I.C.E., R.I.H., Superintending Engineer, Second Circle. Public Works Department, Jubbulpore. Born at Benares in the year 1860. Educated at Benares and Patna Colleges, and Thomason Engineering College, Roorkee. He took his degree at the Calcutta University in 1880. In 1883 he passed the Engineering examination with high distinction and won the Thomason

prize. He joined Government service in the Public Works Department in 1883 with the grade of Assistant Engineer, and was employed in the Ajmere Provincial Division



Mr. R. MITRA.

and on Military Works and Roads in Rajputana till 1890, when he was transferred to the Eastern Division of the Central Provinces. In 1895 he was appointed to officiate as Executive Engineer, Eastern Division. He served in the Hoshangabad Division, Umaria Colliery, and the Jubbulpore Division, and was placed on special duty in the Secretariat in 1897 in connection with the famine. In 1898 he was made substantive Executive Engineer and was appointed Under-Secretary to the Hon'ble the Chief Commissioner in 1900. Subsequently he served in the Nagpur and Narsinghpur Division, and in 1906 he was appointed to officiate as Superintending Engineer, in which grade he was confirmed in 1908. Mr. Rajesvara Mitra was awarded the Kaiser-i-Hind Medal of the Second Class for public service in India on June 26, 1902. In 1894 the thanks of Government were bestowed upon him for getting out the designs for the Rajkumar College at Raipur. In 1898 he received the thanks of Sir Charles Lyall for his rapid and economical carrying out of the reconnaissance for the Nagpur-Jubbulpore Railway. His Excellency the

Viceroy's high appreciation of the excellently organised famine relief works in the Hoshangabad District was conveyed to him after Lord Curzon's inspection in November 1899. He was specially thanked in 1901 by Sir Andrew Fraser, then Chief Commissioner, Central Provinces, for his excellent work in the great famine of the previous year. He was an invited guest at the Delhi Durbar of 1903 when he received the Durbar Medal. Mr. Mitra is a member of the Institution of Civil Engineers, London.

Mr. WILLIAM ALFRED MORAN, Executive Engineer, Bassein Division, Public Works Department, Burma. Born at



Mr. W. A. MORAN.

Naini Tal, United Provinces, in 1863, educated at La Martinière College, Lucknow, and Thomason Civil Engineering College at Roorkee. He passed out of Roorkee with an ordinary certificate, served in Murree, Jhelum, Lahore, and on the North-West Frontier as an Assistant Engineer. In 1889 he was transferred to Burma and served as an Assistant Engineer in Henzada and Rangoon. In 1894 he was placed in charge of the Bassein Division and has since held charge of the Arakan, Chindwin, Henzada, Toungoo and Bassein Divisions.

Completed the hill road from Toungoo to Thandaung, the Hill Station for Lower Burma, and was the designer of the steel bridge over the Sittang River at Toungoo. He is now in charge of the most extensive and perfect system of embankments in the Indian Empire which protect the Henzada and Myanaung Plains from inundation by the Irrawaddy, and produce a revenue of over twenty lakhs a year.

Mr. ADAM WILLIAM MURRAY, Secretary of the Moulmein Municipality, son of the late Mr. William Henry Gilbert Murray, who died in 1864, was born at Moulmein in the year 1857 and educated locally. On leaving school, he joined the Rangoon Pilot Service, but resigned later for the purpose of joining the sea service of the British India Steam Navigation Company. He resigned this service in the year 1879, and returned to Burma, where he was engaged for a time in prospecting for antimony, under the late Mr. Geo. E. L. Dawson. After nine months, antimony not having been found by them in paying quantities, they abandoned the quest. In connection with Mr Dawson, Mr.



Mr. A. W. MURRAY.

Murray established the Salween Steam Navigation Company in 1882, commencing with a service of two steam launches. The flotilla was

gradually increased from time to time till it numbered 15 launches and paddle boats. A small narrow-gauge railway was also laid down by the Company for the purpose of transferring passengers and freight landed from the steamer at Duyinseik, to the town of Thaton, some 8 miles distant. This effected a considerable saving, as the distance between the two places by water is 54 miles. The Burma Government under Sir Charles Bernard granted a subsidy to this line. Other services were gradually opened up by the Company, all of which were subsidised by the Government of Burma. Mr. Murray was the active partner, managing and directing the affairs of the Company. They established their own workshops at Moulmein, where, among other business, they built launches for the Arracan Flotilla Company as well as for their own service. After the death of Mr. Dawson, which occurred in 1899, the Company's business and possessions at Moulmein were disposed of to the Irrawaddy Flotilla Company in 1901, the price paid being Rs. 5,01,000. At the same time Mr. Murray joined the Irrawaddy Company as Manager of the Thaton and Duyinseik Railway, remaining with the Company in this capacity until July 1906, when he resigned for the purpose of taking up the appointment of Secretary to the Moulmein Municipality. He is married to Eugenie Genevieve, daughter of Eugene Gustave Limouzin, and has issue six children (four boys and two girls).

Reverend W. MUSPRATT, M.A., Chaplain, All Saints' Church, Coonoor. Son of the late Fred. Muspratt, Esq., J.P. Born at Bayswater, London, in the year 1868. Educated at Queen's College, Cambridge, whence he took Holy Orders. Until the year 1896 the Reverend W. Muspratt held curacies at Chatham, Finchley, and other places. In the latter year he was appointed to the Indian establishment of the Church of England and given charge at Bangalore, South India, where he was identified with All Saints' Church, and built the Parsonage. Subsequently he was appointed to Vellore, Madras, and on 7th February 1908 he obtained

the appointment at Coonoor. While at Vellore he was a member of the Municipal Council and collected the money (Rs. 3,700) to build a Church at Pakole. The Reverend

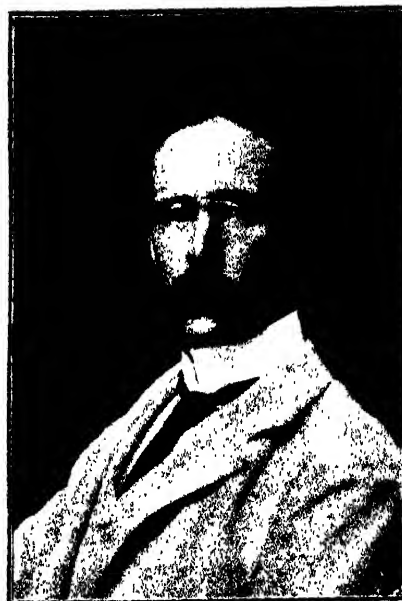


Rev. W. MUSPRATT.

W. Muspratt is an ardent educationalist and his interest in education has taken practical shape. In his former churches he had schools attached, and while at Madras he organized and established a school for Europeans and Eurasians at Royapuram. This institution has been very successful.

Mr. ALAN BERTRAM NAPIER, I.C.S., B.A. (Cantab.), Deputy Commissioner, Nagpur, Central Provinces. Born at Clifton, England, in 1867. Son of the late Reverend John Warren Napier, Vicar of Stretton and later of Axwell Park, County Durham, England, and Anna Maria Helen, daughter of the late Colonel Francis Hunter, formerly of the Honourable East India Company's service. He is a member of the Ettrick Napier family and cousin of Lord Napier, at one time Governor of Madras, being descended from William, the 7th Baron. Mr. A. B. Napier was educated at Rossall and Trinity College, Cambridge. He joined the Indian Civil Service in 1888 and arrived in India September 30, 1889. His first post was as Assistant Com-

missioner, Nagpur. In 1893 he was appointed to officiate as Deputy Commissioner, Chhindwara. He was Settlement Officer, Bhandara District, from 1894 to 1900, being confirmed as a Deputy Commissioner in 1897. After a short period of special duty in the Secretariat and Settlement Commissioner's office, he was appointed Commissioner of Excise in 1902, and then became Deputy Commissioner of Raipur, where he was awarded the Kaiser-i-Hind Medal for public services in 1904. In 1907 he was appointed Settlement Officer, Phuljhar



Mr. A. B. NAPIER.

zamindari in addition to his other duties, and later in same year Political Agent, Chhindwara Feudatories. From April to November 1908 he officiated as Commissioner, Nagpur.

Dr. THOMAS JOSEPH O'DONNELL, F.R.C.S.I., L.C.P.I., Chief Medical Officer, Kolar Gold Fields, Champion Reefs. Born in Tipperary, Ireland, and educated at the Ledwich School, and Royal College of Surgeons, Dublin, where he qualified in the year 1878. He afterwards practised at Rhymney Iron Works, South Wales; and Consett Iron Works, Durham. Having the seven years experience gained in these busy industrial centres in the old country to recommend him, in 1885 he was selecte

as their Medical Officer by Messrs. John Taylor & Sons, Managers of the Companies working on the Kolar Gold Field, and came out to India in the same year to take up his professional duties. At that time there was no hospital at the Gold Field. Dr. O'Donnell undertook the whole work of medical attendance himself. He impressed the necessity of establishing a hospital on Messrs. John Taylor & Sons and they found the money wherewith to start a small hospital accommodating about 48 patients, which was opened in 1887. The need of more complete medical arrangements was severely felt and representations being made to the



Dr. T. J. O'DONNELL.

Directors from time to time, Dr. O'Donnell was authorized to build additions to meet the situation. The present splendid up-to-date hospital which was completed in 1900 is the result. It is a fine modern structure provided with good accommodation, and the best appliances for the practice of medicine and surgery, including electrical and Röntgen Rays apparatus, a Bacteriological Laboratory, etc., and is fully abreast of the times. The staff consists of Dr. T. J. O'Donnell, Chief Medical Officer; J. D. O'Donnell, F.R.C.S.E., First Assistant Medical Officer; L. P. Stokes, L.R.C.S., & P.L., Second Assistant Medical Officer; James

F. Fitzmaurice, L.R.C.P.I., & S.I., Third Assistant Medical Officer; Venkatakrishna Row, C.S., L.M. & S., Resident Medical Officer; Miss N. Nelson, Matron; Mrs. E. Old, Mrs. E. M. Sankey-Dunhill, Mrs. E. Edwards, Nurses; W. A. Fernandez, Senior Hospital Assistant; T. J. Manikam, Junior Hospital Assistant; W. S. Newman, L.M.P., F.C.S., Chemist.

There is also a Sanitary Inspecting body under the control of Dr. O'Donnell in connection with the Mining area of the Kolar Gold Field Sanitary Board. This department is thoroughly systematized and its energies have resulted in the reduction of plague to a very low figure.

Rat destruction was recognized in the early days as the key to success in the combat with the pestilence, and a methodical plan was entered upon for the extermination of rodents—their holes were traced to the bottom, the nests found, and young and old rats were immersed in strong Izal solution until death ensued. As supplemental measures, rat traps, the Common Sense Rat Exterminator, and the Liverpool Virus were largely employed; and the comparative immunity from plague which the Mining area of the Gold Field has enjoyed is to be attributed to this rat crusade, which is continued throughout the year whether plague is in evidence or not. The Laboratory attached to the Hospital too has played an important part in the recurring epidemics. Here, if there is the slightest suspicion that a rat has died of plague, bacteriological investigation is instituted, and if positive evidence is discovered, evacuation of the premises from whence the rodent came is carried out with the utmost celerity.

In 1900, Dr. O'Donnell visited Ireland and took his Fellowship of the Royal College of Surgeons.

Dr. O'Donnell is a Surgeon-Major in the K. G. F. Vols, and has had the honour of receiving the V. D.

The Honourable Mr. MICHAEL FRANCIS O'DWYER, B.A., C.S.I., Resident of Hyderabad (Deccan). Born at Barronstown, Tipperary, in the year 1864. Educated at St. Stanislaus' College and Balliol College, Oxford. He took his degree

in 1885 and gained first class Honor in Law. He passed into the Indian Civil Service in 1884, and in November of the following year came to India. His first ten years' of service were passed in the Punjab, where he served as Assistant Commissioner, Settlement Officer, and Deputy Commissioner in various districts. He took furlough in 1895, which he utilised to travel in Russia, studying the language and qualifying as Interpreter. He returned to India at the end of 1896 when he was given the appointment of Settlement Commissioner to the States of Alwar and Bharatpur in Rajputana. He remained four years in this appoint-



The Hon'ble Mr. M. F. O'DWYER.

ment and took leave in 1901. On his return he was transferred to Peshawar as Revenue Commissioner of the new Frontier Province. In 1905 he officiated for three months as Chief Commissioner of that Province. In 1907 he officiated as Resident, Hyderabad, for a short term, and in 1908 was again appointed Acting Resident, H. H. Nizam's Dominions.

Mr. JOHN GEORGE DENMAN PARTIDGE, I.C.S., Collector and District Magistrate, Cuddapah, was born in England in the year 1863 and educated at Sherborne School, Dorsetshire, and University College, London. He joined the Indian

Civil Service in 1886 and arrived in India in January 1887. His first appointment was at Trichinopoly as Assistant Collector and Magis-



Mr. J. G. D. PARTRIDGE.

trate. He filled the same position at Kurnool, Godavari and Ganjam until 1893; then became Senior Assistant Collector and Magistrate, and from 1893 to 1897 he officiated as Principal Assistant Collector and Magistrate and Agent to Government at Ganjam. From 1898 to 1900 he acted at Madura as Collector of the District. In 1901 he was again transferred to Ganjam and then served as Collector, District Magistrate and Agent to Government until 1908 when he was appointed Collector and District Magistrate at Cuddapah.

Mr. FRANCIS ANGELO THEODORE PHILLIPS, I.C.S., Commissioner, Chhattisgarh Division, Raipur, Central Provinces. Born in London August 3, 1857, and educated at Winchester College. After leaving this public school he was at Wren's Coaching Establishment for a short time, and subsequently entered at Balliol College, Oxford. He joined the Indian Civil Service, September 14, 1880, and arrived in India on November 11, of the same year. He served in the grade of Assistant Commissioner until 1891, during which period he officiated

as Personal Assistant to the Chief Commissioner, 1883; Judge, Small Cause Court, Nagpur, 1883-84; Deputy Commissioner, Sambalpur, 1884; Bilaspur, 1885; Raipur, 1885; Nimar, 1887; Judge, Small Cause Court, Jubbulpore, 1887; Deputy Commissioner, Nimar, 1888; Bhandara, 1890; Narsinghpur, 1891. He was appointed substantive Judge, Small Cause Court, Jubbulpore, in the last named year, and Commissioner of Excise later in the same year. In 1892 he was confirmed in the Deputy Commissioner's grade, and in 1898 appointed to officiate as Commissioner, Nerbudda Division. In 1901 he was promoted to the substantive grade of Com-



Mr. F. A. T. PHILLIPS.

missioner and posted to Chhattisgarh. From 5th to 24th March 1907, he officiated as Chief Commissioner, Central Provinces, substantive *pro tem*. In April of same year he was appointed to officiate as Political Agent, Chhattisgarh Feudatories, in addition to his other duties. Mr. Phillips is President of the governing body of the Rajkumar College, Central Provinces, Raipur. In his College days he was a member of the Oxford University Football Team (1879-80), and played in the Final Tie for the Association Cup.

Mr. HENRY ALEXANDER, PLAYFAIR, Deputy Inspector-General of Railways and Crime,

Police Department, Central Provinces and Berar. Son of the late General Elliot Minto Playfair, R.A. at one time Commissioner of the Central Provinces. He was educated at private schools in Bedfordshire and Blackheath, England, and after being two years at Edinburgh University he obtained an appointment in the Police Service, Central Provinces, India, in 1882. He served as Assistant till 1886 when he was appointed officiating District Superintendent. In 1890 he was placed on special duty at Sehore in the Bhopal State. In 1901 he officiated as Inspector General of Police and Jails, Central Provinces, in addition to his own duties, and in the following year was again appointed Acting Inspector General. His services were placed at the disposal of Government of India, Foreign Department, in 1902-03, in connection with the Delhi Durbar as Attaché for C. P. In 1906 he was appointed Deputy Inspector-General of Police, *sub pro tem*, the appointment being made substantive in 1907.

Mr. SIDNEY MELVILLE PRITCHARD, Superintendent of Police, Kolar Gold Fields. Son of the late Thomas Pritchard of



Mr. SIDNEY M. PRITCHARD.

the Madras Civil Service. Born at Sunkerdroog, Salem District, Madras Presidency, in the year 1870.

Educated at Beaumont College, Windsor, England. He studied at the Edinburgh High School and next proceeded to the Oxford Military College, passing the preliminary examination for the army. The death of his father induced him to go to Australia where he went in for sheep farming, remaining in that country for five years. During that period he passed the Matriculation Examination of the Melbourne University, but owing to the financial crisis in Australia he returned to India. Here he embarked in coffee planting in which he still retains an interest. In March 1904 he entered the Kolar Gold Fields service of Messrs. John Taylor & Sons as Chief Supervisor of Watchmen, which appointment he held till July 1907, when he was appointed to the Police Department of the Mysore State Government service, as Assistant Superintendent on the Gold Fields. He was promoted to Superintendent in September of the same year. He passed the higher Criminal Examination at Bangalore in May 1908. The Kolar Gold Field Police Force consists of 250 men under two European and six Indian Inspectors. Mr. Pritchard has brought the force to a high state of efficiency.

Mr. A. K. RAY was born on the 28th of January 1858. He is 27th in descent from Vedagarbha, the most learned, in the Vedas, of the four Kanauj Brahmins imported into Bengal by King Adisura in the ninth century of the Christian era, and is a scion of the Bengal Savarna family. The founder of this family, Lakshmikanta Majumdar, divided with Bhavananda Majumdar, the ancestor of the Krishnagar Raj family, in the early years of the seventeenth century, the highest honours and privileges in the Government of Bengal, under its Hindu Governor, General Rajah Man Sing. For services rendered to the General by his father and himself, Lakshmikanta was awarded by the Emperor Akbar jagirs and zamindaries which yielded him a net income of rupees twelve lakhs per annum. A great-grandson of Lakshmikanta, Vidyadhar Ray Chowdhury, was the first amongst the Bengal zamindars to extend help and protection to the

harassed English merchants when they were turned out of Hooghly. He allowed them to settle in Calcutta in spite of the Nawab Aliverdi Khan's threats and protests. It was Ramchand, the son of Vidyadhar, who with his cousins, Manohar, Pran, and Rambhadra, signed away the deed of sale by which the right to the rents of the three villages, Dihi Kalkatah, Sutanuti and Govindapur, which together now form the town of Calcutta, was transferred to the E. I. Company.

The members of this family entered the service of Government for the first time in the last generation. Both his uncles, one a Sub-



Mr. A. K. RAY.

Judge, and the other a Deputy Collector, died in harness, whilst Mr. Ray's father lived for nearly seven years after his retirement on pension. All three of them were highly respected by, and were on terms of friendship with, their official superiors, amongst whom Messrs. Money, C. T. Buckland, J. P. Grant, A. C. Brett, Sir Henry Harrison, and Sir Henry Thoby Prinsep, may be named for their special kindness and cordiality.

Mr. Ray headed the list of the graduates of the Calcutta University in January 1879 from the Hooghly College in which he received his English education,

and obtained a record stipend. He passed his M. A. with honours from the Presidency College in 1880, and entered Government service in March of the following year as a Professor of Science in the Rajshahi College. Whilst employed in the Education department he was sent to England in December 1882 where he graduated M. R. A. C. with first-class honours in the Royal Agricultural College at Cirencester. He also obtained during the same year, in open competition, the life membership, together with a monetary prize, of the Royal Agricultural Society of England. Since his return to India, Mr. Ray has been attached to the Provincial Civil Service of Bengal, and has held very nearly all the appointments for which Provincial men in the Executive branch are eligible. He has held charge of important sub-divisions in Bengal, such as Bongong, Natore, Araria, Kushtia and Ranigunge. He is well known for his honest, fearless, and independent character. He has been commended for important and useful work done by him in Excise, Settlement, Registration, Land Acquisition, and Census departments. His was the first final settlement report of operations conducted under the Bengal Tenancy Act, and it was greatly valued by officers until the Settlement Manual was issued. In the Government resolution on the census of Calcutta, 1901, Mr. Ray was especially commended and thanked by the Government, and his "Short History of Calcutta" was deemed the most interesting contribution in connection with that work. He also earned the thanks of Government by his compilation on the Land Values of Calcutta, in connection with the proposed improvement scheme in 1904, and it was circulated by Government to all District Officers.

Mr. Ray acted as Collector of Balasore last year and is at present employed in the Presidency Division. Besides his "Impressions in England," which has just passed through its second edition, and his "Short History of Calcutta," no book of his has been published in the English language; but his contributions to periodical literature have been consi-

derable. His Bengali works "Gojati Unnati," "Goseba, Part I," "Krishi O Gomay," are well known, and are on the approved list of the Text-book Committee. The first-named work has appeared in three languages, Urdu, Bengali and Hindustani.

Mr. FRANCIS PEPYS RENNIE, I.C.S., Divisional and Sessions Judge, Derajat, North-West Frontier Province. Born in the year 1872, educated at Winchester College and Clare College, Cambridge. Joined the Indian Civil Service in the year 1895 and was posted to the Punjab. Served as Assistant Commissioner at Rawalpindi from December 1895 to June 1897, being transferred in the latter year in same capacity to Sialkot. Later in the same year was transferred to Peshawar and appointed City Magistrate at that centre, holding this post till 1898 when he was placed in charge of the Thal Sub-Division of the Kohat District. In December 1898 he was deputed to settlement training in the Jhelum



Mr. F. P. RENNIE.

District for three months, and then appointed Sub-Divisional Officer of the Mardan Sub-Division of the Peshawar District. In May 1899 was returned to Thal and in 1900 was appointed to officiate on special duty in the Kurram Valley. In the same year he was again appointed to Thal, and in

the following year was called on to officiate as Deputy Commissioner, Kohat District. In February 1902 he was again posted as Sub-Divisional Officer to Mardan. In the same year, after six months' leave, he was appointed District Judge and subsequently Deputy Commissioner of the Bannu District, and two years later to officiate as Divisional and Sessions Judge of the Derajat. After holding this post a year he took furlough, and on his return in 1906 was appointed First Assistant to the Resident in Mysore. In 1908, he was again transferred to the Frontier and appointed substantive Divisional and Sessions Judge of the Derajat. When the North-West Frontier Province was separated from the Punjab in 1901, Mr. Rennie was one of the officers who threw in his lot with and was selected by the late Sir Harold Deane, Chief Commissioner, for appointment in the new Province.

Mr. JOHN HERBERT ROBERTSON, I.C.S., Magistrate and Collector and Additional Sessions Judge, Ootacamund. Born in the year 1868 at Etah, N.-W. Provinces, India. He was educated partly privately in Scotland, at Highgate School, and Balliol College, Oxford. In the year 1889 he joined the Indian Civil Service and in November of the same year came out to India. His first post was at Salem as Assistant Collector and Magistrate. He served in several other districts in the Madras Presidency in the same capacity, and also officiated as Head Assistant Collector and Magistrate till the year 1893, when he proceeded on furlough on medical certificate. Two years later on his return from furlough he was appointed Assistant Collector in South Canara, and served in that capacity at Tinnevely till, in 1896, he was appointed Special Assistant Collector, Magistrate and Government Agent, Godavari, and acted as Sub-Collector and Joint Magistrate at Tinnevely and Chingleput. Two years later he was transferred in the same capacity of Special Assistant Collector and Magistrate to Malabar, and served in this capacity in other districts, in 1899 officiating as Additional Sessions Judge at Tinnevely. In 1900, he officiated as District

and Sessions Judge, Vizagapatnam for a short period. In the following year he was transferred to Cudappah, and in this district he again officiated as Sessions Judge in the year 1904. He returned to South Canara in 1904 as Magistrate and Collector, and in the year 190



Mr. J. H. ROBERTSON.

was transferred in a like capacity to Salem. Subsequently he was appointed Magistrate and Collector at Ootacamund and Additional Sessions Judge, his present position. Outside his official life Mr. Robertson is President of the Nilgiri Agricultural and Game Societies and Vice-Chairman of the Ootacamund Lawrence Asylum.

The Honourable Mr. Justice C. SANKARAN-NAYAR, C.I.E. Judge, High Court, Madras, born on 11th July, 1857. Educated at various schools in the Madras Presidency where he had the advantage of English teachers almost from the commencement of his studies. At the Presidency College, Madras, which he afterwards attended, Mr. Nayar received education at the hands of the eminent English scholars, Messrs. Edmund Thompson and W. A. Porter, whose reputation is great in Southern India. Here Mr. Nayar was the Elphinstone prize winner. The accurate and facile pen which Mr. Justice Nayar possesses as an

English writer is due to these advantages of education coupled with his own natural gifts. He took his B. L. degree at the Madras University, passing as the first in the year 1879, and thereafter was offered and accepted the appointment of Munsiff, which, however, he resigned some few months later in order to return to practice at the Bar. Here he quickly attracted notice, and was appointed



The Hon'ble Mr. Justice C. SANKARAN NAYAR.

by the Madras Government a member of the Committee appointed in 1884 to enquire into the state of Malabar. He acted also on several other commissions appointed by Government to consider the question of the management of temples, the relationship of landlord and tenant, etc. The Malabar Tenants Improvement Bill was passed through the local Legislative Council with the aid of Mr. Nayar even before he was appointed to that body. In 1889 Mr. Nayar was appointed a Fellow of the Madras University. He received his nomination as a member of the Governor's Council in 1890. He was instrumental in getting enacted the Malabar Marriage Act, the one piece of social legislation ever passed by a private member, and which has introduced into India in a modified form the principle of civil marriages. This measure is spoken of highly. Mr. Nayar was one of the founders of

the *Madras Law Journal* and for sometime acted as one of its editors. His literary labours included the establishment of the *Madras Review*, which he conducted for a time. In 1897 he was elected President of the Indian National Congress which sat at Amraoti, C. P., in that year. He was also the President of the first Madras Provincial Conference, and he is the President of the Madras Social Reform Association. In 1904 he acted as President of the Madras Industrial Exhibition which was opened by H. H. the Maharaja of Mysore, and the Companionship of the Order of the Indian Empire was conferred upon Mr. Nayar for his services in connection with that Exhibition. Amid his multifarious occupations he has found time to devote a good deal of attention to literature, and has been Madras correspondent for various London papers, and has contributed to the *Calcutta Review*, *Contemporary Review*, and other high class periodicals. For some years he served as an elected member of the Madras Municipality. His facile pen and great learning were utilised by Sir William Hunter, who requested him to write an account of the social customs of Malabar, which he did. The paper proved of such value that it was utilised in West and Buhler's Digest of Hindu Law by the learned authors. Before his present appointment as Judge of the High Court, Mr. Justice Nayar brilliantly held the post of Advocate-General of Madras, being the first Indian appointed by the Crown to such a responsible post in India. He is a leader of Hindu Society in Madras, and has much interested himself in promotion of the cause of education, to which he has contributed largely in work and donations. Mr. Justice Nayar is a prominent Freemason. He is a member of Gray's Inn.

Rai SARAT CHANDRA SANYAL, Bahadur, M.A., B.L., Divisional and Sessions Judge, Nagpur. Born at Saran in September 1861, his father being the late Rai Bahadur Gobinda Chandra Sanyal, a first grade Subordinate Judge in the Bengal Service, who died in 1877 at Patna, after a short but brilliant career. The Rai Bahadur was educated at Patna and finished his education

at the Canning College, Lucknow, where he attained distinction, his name being preserved in gold letters on the roll of honour in the hall of the College. He took his B.L. degree at the Calcutta University in 1884 and received an appointment as Judicial Officer in Bengal at the hands of Justice (now Sir Henry) Prinsep, in consideration of his father's services. His own excellent services in lower grade attracted the notice of the High Court at Calcutta, which honourable body specially selected him in 1893 for the Central Provinces, when Sir Antony (now Lord) Macdonell, then Chief Commissioner, indented on Bengal to improve the Civil Judiciary



Rai Bahadur SARAT CHANDRA SANYAL.

of the Provinces. This selection has been fully justified. Rai Bahadur Sanyal served with credit as Civil Judge at various centres until 1902, when he was appointed Senior Small Cause Court Judge, Nagpur, then considered a prize appointment in the Provincial Service. In 1903 he was appointed Divisional and Sessions Judge, Raipur, and in the year following was transferred to Nagpur in the same capacity, where he has remained ever since, having been made permanent in the grade of Deputy Commissioner.

Mr. GEORGE WATSON SHAW, I.C.S., Judicial Commissioner, Mandalay, Upper Burma, joined the

service in September 1879, and arrived in Burma in December of the same year. After serving as Assistant Commissioner in various Districts, he was posted in 1886 to the charge of the Katha District in Upper Burma. As Deputy Commissioner he successively held charge of Bhamo, Shwebo, Amherst, Thongwa and Tharrawaddy Districts. In 1899 he was appointed to officiate as Commissioner of the Minbu Division and in 1900 was transferred to the Mandalay Division. In March 1901 he was confirmed as Commissioner of Mandalay. In this capacity he served until February 1905, officiating for nine months in 1901 and six months in 1904 as Judicial Commissioner, Upper Burma. In May 1905 he was appointed Judicial Commissioner of Upper Burma, which post he still holds.

Lieutenant-Colonel ROBERT SHORE, M.D., I.M.S., Residency Surgeon, Hyderabad, Deccan. Born in Ireland in the year 1856. Educated at Galway Grammar School and Queen's College, Galway. In 1879, he took his



Lieut.-Col. R. SHORE.

M. A. degree, and in 1880 his M. D. at Queen's University, Ireland. He joined the Indian Medical Service on September 29, 1883, and arrived in India May 3, in the following

year. His first appointment was as Medical Officer attached to Station Hospital, Jullundur. During his first year in India he served also at Quetta and Karachi, being attached to the 45th Sikh Regiment, and in medical charge 2nd North Staffs Regiment, and in medical charge No. 1 Cholera Camp, Karachi. He remained in medical charge of various regiments till 1887, when he was placed in charge of the Kotah and Jhallawar Agencies, and in the following year he was appointed Residency Surgeon, Nepal. In the year 1892, he was appointed Residency Surgeon, Turkish Arabia, and stationed at Bagdad, but returned to India by the middle of the same year to Deoli, where he was stationed as Medical Officer, Deoli Irregular Force. After a period of furlough he joined the Meywar Bhil Corps in 1894, and two years later was appointed Medical Officer, Kotah and Jhalrapatan. He held charge of the current duties of the office of Political Agent, Kotah, in addition to his own duties in April 1896. In November of the same year he was appointed Medical Officer, Erinpura Irregular Force, and in the following year received the substantive grade of Agency Surgeon, 2nd class. In 1898, he attained the grade of Residency Surgeon and was posted to Udaipur, where from July to August 1899, he held charge of the duties of the office of the Resident in addition to his own. He went on furlough in 1899 and on his return was appointed to officiate as Agency Surgeon, 1st class, at Quetta, and afterwards at Alwar. He was appointed Residency Surgeon, Udaipur, in 1902. From May 1907 to April 1908, he was placed on deputation as Medical Officer in charge of the Maharaj Kumar of Udaipur, and from that appointment was transferred to Hyderabad, Deccan, as Residency Surgeon.

The Hon'ble Mr. PAZHAMARNERI SUNDARAM IYER SIVASWAMY AIYER, C.I.E., Advocate-General to the Government of Madras. Born in the Tanjore District, Madras Presidency, on the 7th February 1864, his father being a highly respected pleader in the District. He was educated at the S. P. G. College, in his native

town, whence he matriculated in 1877. Subsequently he took his F. A. Course in the Kumbakonam College under Mr. T. Gopale Row the distinguished educationist and



HON. MR. P. S. SIVASWAMY AIYER.

his B. A. Course in the Presidency College, Madras, where he studied under Mr. Edmund Thompson. He took his degree in January 1882 being placed second in the first class. He stood first in Sanskrit, his optional language, receiving the Goady Vari Narain Sanskrit prize and the Oppo Medal. In History he was awarded the Gordon prize. For the next two years he pursued the study of law and took his B. L. degree in 1884, heading the list of successful candidates. He was enrolled a vakil of the High Court of Madras on 17th April 1885. He has practised at Madras ever since. In 1887-8 he was appointed Examiner in Sanskrit to the University of Madras. In the year 1893 he received the appointment of Assistant Professor of Law at the Madras Law College which he held till 1899. He held the post of Examiner for the B. L. degree in 1898-99. In 1898 he was made a Fellow of the University of Madras, and has ever since taken an active part in the affairs of the University. After a close contest with the Revd. Canon Sell, the rival European candidate, he was elected in 1904 to represent the University in the Madras Legislative

Council, and was the first Indian to fill that position. He was re-elected in 1906 without opposition. He received the appointment of officiating Advocate-General of Madras in October 1907 in place of Mr. C. Sakmu Nair who had been appointed to act as High Court Judge. His Majesty the King-Emperor appointed him permanent Advocate-General on the 13th January 1908. At the New Year's Honours 1908, he was created a Companion of the Indian Empire. The Honourable Mr. Sivaswamy Aiyer presided at the Tanjore District Conference held in March 1907. As Member of the Legislative Council he had a great share in the shaping of the Madras Estates Land Bill and other important measures. From 1893 to 1907 he was a joint Editor of the *Madras Law Journal*. The Honourable Mr. Sivaswamy Aiyer is a Tamil Brahmin.

Dr. W. F. SMEETH, D.Sc., M.A., B.E., A.R.S.M., A.R.C.Sc., F.G.S., State Geologist, Chief Inspector of Mines and Secretary to the Government of Mysore, India. Born December 30, 1865, at Dublin, educated at Saint Columba College, Rathfarnham. From 1884 to 1888 at Trinity College, Dublin, where he took the degrees of B.A. and B.E., and was Senior Moderator and Gold Medallist in Experimental Science, and subsequently took the degrees of M.A. and D.Sc. In 1889 was for some time employed in the designing office of Mather and Platt, Engineers, Salford. From 1889 to 1892 at the Royal College of Science, London, and took the Associateships of the Royal College of Science and Royal School of Mines. Member of the Institution of Mining and Metallurgy, London; American Institute of Mining Engineers, and Fellow of the Geological Society of London. From 1892 to 1897 Demonstrator in Geology and Lecturer in Metallurgy at the University of Sydney, Australia. In 1898 joined the staff of the Mysore Geological Department, and in 1900 was appointed to his present position.

Lieutenant-Colonel JOHN SMYTH, M.D., I.M.S., Senior Surgeon and Sanitary Commissioner to the

Government of Mysore. Born 27th September 1857, at Monaghan, Ireland, and educated at Monaghan, afterwards at Queen's Colleges, Belfast and Galway, University College, London, and Pasteur Institute, Paris, &c. Joined the service on 1st October 1881, his first appointment being to Netley. In the following year he did duty at the General Hospital, Madras. In July of the same year he was placed on military duty and voyaged with troops between Madras and Rangoon. After a spell of regimental duty at Madras, he proceeded to Suez with troops, returning to Bombay in September 1882 when he did duty with troops by rail to Secunderabad. He was again



Lieut.-Col. J. SMYTH.

placed on regimental duty in October 1882. In the following year he was appointed to officiate as Resident Surgeon, General Hospital, and Professor of Pathology, Medical College. Late in the same year he officiated as Civil Surgeon, Calicut, and in February 1894 was appointed Fort Surgeon and Medical Inspector of Searren at Madras, and Professor of Anatomy, Medical College. In 1885, he was on field service in Egypt in medical charge of F. Company, Queen's Own Sappers and Miners, being awarded the medal, with two clasps and the Khedive's Star. In December 1885 he returned to Madras as Assistant

Physician, General Hospital, and Professor of Hygiene, Medical College. In the following year he was transferred as Civil Surgeon to Vizagapatam, reverting to his former appointment at Madras in 1887. He was appointed substantive Resident Surgeon, General Hospital, and Professor of Pathology, Madras, in December 1887. He remained in the appointment till 1892 when he was appointed to officiate as Superintendent, Government Lying-in Hospital, and Professor of Midwifery, Medical College. He obtained his step to Surgeon-Major in 1893. He acted at Madras successively as Fort Surgeon, Surgeon, General Hospital, and Professor of Surgery and Chemical Surgery till April 1899, when his services were placed at the disposal of the Foreign Office for employment as Medical Officer in charge of His Highness the Maharaja, and the Palace, Mysore. In 1900, he was appointed Senior Surgeon and Sanitary Commissioner with the Government of Mysore, and Inspector-General of Prisons, in which capacity he acted till 1904 when he was appointed substantive Senior Surgeon and Sanitary Commissioner to Government of Mysore.

In 1908, when returning from furlough he proceeded to Japan on deputation to study applied sanitation in that Empire and rejoined his duties in Mysore on 5th June of that year.

Major ROBERT FRASER STANDAGE, I.M.S., M.R.C.P. (Lond.), M.R.C.S., Residency Surgeon, Bangalore, is in charge of the Bowring Civil Hospital and the Lady Curzon Hospital, Bangalore. Born in Scotland in the year 1868. Educated privately. Studied medical practice from 1886 to 1892 at St. Bartholomew's Hospital, London, where he took the Bentley surgical prize. He subsequently held various medical appointments as House Surgeon, House Physician, and other posts at London Hospitals. In 1895, he entered the Indian Medical Service and came out to India in the same year. He was at first appointed to the 2nd Bombay Lancers, with which corps he served till 1897. During 1897, he was District Medical Officer of Famine Duty, and received the thanks of Government for his

Famine work at Sholapur. At the end of 1897, he was attached to the 2nd Baluchis under orders for Uganda, East Africa, in which campaign, Major (then Captain) Standage greatly distinguished himself, being present at the actions of M'ruli and Jernba. He was mentioned in despatches for conspicuous gallantry at the action of M'ruli, where it was recorded that when his stretcher bearers bolted, he was indefatigable in bringing in wounded men from the firing line by his own exertions, often on his own back, and otherwise being prominent in the performance of his duties. His untiring efforts on behalf of the men both on the



Major R. F. STANDAGE.

march, the camp, and in action were very favourably commented upon. For this service he received the Uganda medal and clasp. He returned to India in 1900 and was appointed to the Foreign Department of the Government of India, and received the post of Residency Surgeon in Mysore. He attended the Delhi Durbar and received the Coronation medal. In 1907, he received accelerated promotion to the rank of Major. Major Standage has published many papers in the "Lancet," "Indian Medical Gazette" and "Journal of Gynecology of the British Empire,"

chiefly on abdominal and gynaecological surgery.

Mr. HENRY JOHN STANYON, C.I.E., V.D. (*Lieut.-Col., Nagpur Vol. Rifles*), Bar.-at-Law, Additional Judicial Commissioner of the Central Provinces and Berar, residing at Nagpur, India. He is the eldest son of the late George Walter Ludlam Stanyon, and was born in Meerut, India, on the 22nd October 1857. He was educated at the Mussoorie School, at Bishop Cotton School, Simla; and at Wrigley's in Clapham, London. From the last named establishment he was called to the Bar at the Inner Temple on the 11th May 1881, and returned to India in July of that year. He first practised at Agra in the United Provinces for one year, being enrolled as an Advocate of the High Court of Judicature for that area. In May 1882 he moved to Jubbulpore in the Central Provinces, where he appeared at the Bar continuously for 16 years, and established an extensive practice. He was President of the Jubbulpore Municipal Committee for seven years, 1891-97, and was created a Companion of the Indian Empire on the 24th May 1895, for his work in that capacity. In March 1897, he accepted an appointment under Government as a Divisional Judge, and from that time till 1899 served as Deputy Commissioner and Divisional and Sessions Judge, Nagpur Division. In March 1904, he was appointed Additional Judicial Commissioner *s.p.t.*, of the Central Provinces, and in August of the same year, went on deputation to Amraoti as Judicial Commissioner of Berar. On the administrative amalgamation of Berar with the Central Provinces on the 1st September 1905, Mr. Stanyon returned to Nagpur to officiate as Second Additional Judicial Commissioner for the Central Provinces and Berar, and was confirmed in that appointment in November 1906. He is at present (November 1908) holding the office of First Additional Judicial Commissioner of the above territories. He also holds a commission in the Volunteer Force with the rank of Lieut.-Col. For seven years, 1869-75, he was a member of the 2nd Punjab Volunteer Rifles (Cadet Company), at Simla. Since 1890, he has been

on the rolls of the Nagpur Volunteer Rifles. He received his first commission as Captain in 1891, his step to Major in 1897, and was promoted to Lieut.-Colonel and Commandant of the Corps on 3rd December 1902. In 1905, he obtained the Volunteer Long Service Medal, and on the 1st January 1906 the Volunteer Officers' Decoration was conferred upon him. Mr. Stanyon has always been a keen sportsman, and has enjoyed a fair share of the excellent big game shooting in the Central Provinces which have been his home for so many years, several tigers and some good heads being among his trophies. He has always taken an active part in games of all kinds, and is considered to be above the average of amateur billiard players. He has some local reputation as a musician. He built a large organ for Christ Church, Jubbulpore, and was Honorary Organist of the Church for about seven years. He is also a composer of music, and plays several instruments. He has followed the modern craze, and is an enthusiastic motorist. On the 22nd October 1898 he married Jessie Chittenden, a daughter of the late E. A. Goodall, Esq., R.W.S., one of the well-known family of artists of that name.

Mr. WALTER BAYNTUN STARKY, Superintending Engineer, Nagpur, Central Provinces, was born at Spye Park in the county of Wiltshire, on March 18, 1861. Was educated at the Royal Academy, Gosport, and at the Royal Indian Engineering College, Coopers Hill. Joined the Public Works Department of India as an Assistant Engineer in the year 1883, and proceeded to India in the same year. Was first posted to Bengal Irrigation; but in 1885 was sent to Baluchistan to make hill roads; from thence, in 1889, he was transferred to the Central Provinces. Was promoted to the rank of Executive Engineer in 1898. In 1904, was entrusted with the drawing up of programmes for Famine Relief Works; and, in 1905, was appointed Under-Secretary to the Chief Commissioner in the Public Works Department, which appointment he held until promoted to Superintending Engineer in 1908. Held, until recently, a Commission in the Nagpur Volunteer Rifles

and is President of the De Dion Motor Club of the Central Provinces. For a term of five years he was Captain of the Nagpur Hunt Club, which is one of the oldest in India, its annals extending as



Mr. W. B. STARKY.

far back as the year 1863. In his youth he was a good all-round athlete; having obtained many prizes for running, jumping, boxing, and sculling, and having been Captain of the well-known Coopers Hill Football Team. He now takes interest principally in pig-sticking and polo. Until too heavy to ride in races, he obtained a fair meed of success, both on the flat and across country. In fact, he is a lover of the horse, in which he follows in the footsteps of his father, Mr. John Bayntun Starky, who owned several good race horses in England, the most prominent of whom was the celebrated 'Fisherman,' who won the Ascot Gold Cup on two occasions.

Mr. JAMES WALKER, C.I.E., I.C.S., Commissioner, Nagpur, Central Provinces, born at Aberdeen, Scotland, in the year 1864. Educated at Aberdeen University and Balliol College, Oxford. Joined the Indian Civil Service September 14, 1886, and arrived in India on December in the same year. He served as Assistant Collector

and as Head Assistant Collector in the South Arcot, Trichinopoly, and Godavari Districts. In 1890 his services were transferred to the Central Provinces where he was appointed a substantive Deputy Commissioner in 1895. Served for several years as Deputy Commissioner of Nimar and of Nagpur. In 1902, he was a member of the Local Police Committee in connection with the Police Commission Enquiry. Invested with the insignia of a Companion of the



Mr. JAMES WALKER.

Order of the Indian Empire on January 1, 1904. Has officiated as Inspector-General of Police and as Commissioner in the Nagpur and Nerbudda Divisions. Confirmed as Commissioner in 1908.

The Hon'ble Mr. FREDERICK JAMES WILSON, M.I.C.E., Chief Engineer and Secretary to the Government of Madras in the Public Works Department. Born at Edinburgh on the 17th January 1858; educated at Somersetshire College, Bath, and at Coopers Hill. On leaving the latter institution he had a course of a year's practical training under Sir Alexander Rendel on the Victoria Dock Works and afterwards at the Leith Docks. He proceeded to India to join the Public Works Department in the year 1880 as Assistant Engineer, and

was posted at first to the Tinnevely Division. He rose through the various grades, holding charge of Division as Executive Engineer with temporary rank from 1890, till appointed substantive Executive Engineer in 1892. In 1891 and 1892 he acted as Engineer to the Madras Harbour Trust, and from 1896 to 1900 held the post of Assistant to the Chief Engineer for Irrigation and Under-Secretary to Government. In 1902-03 after serving as Superintending Engineer, P. W. D., for about eight months, his services were placed at the disposal of the Madras Harbour Trust Board, in which employment he remained for nearly three years, acting as Chief Engineer to the Trust. In that period he prepared the designs for and started the Madras Harbour improvement works for constructing a new entrance to the Harbour and building the north Breakwater. He reverted to the P. W. D. at the end of 1905 on his appointment as Chief Engineer, for Irrigation, and Joint Secretary to Government, P. W. D. In October 1906, after furlough, he received his



Hon. Mr. F. J. WILSON.

present appointment of Chief Engineer, 1st grade, and Secretary to Government in the Public Works Department. He is a member of the Institution of Civil Engineers,

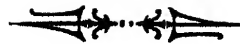
President of the Sanitary Board of Madras, and Fellow of the Madras University. In October 1906 he was appointed a member of the Madras Legislative Council. The Honourable Mr. Wilson is fond of hunting and other sports, and takes an interest in motoring. His clubs are, East India United Service (London), Madras Club and Ooty Club.

Mr. C. H. YATES, Superintendent, Government Press, Stationery, etc., Mysore State. Born February 25, 1856. Mr. Yates is by profession a printer, and was in his early business years identified with large printing and publishing establishments in Great Britain. Later on he was engaged as instructor in typography in a Technical Institution near London. In 1903, he entered the firm of Messrs. Oakes & Co., Ltd., Madras, and joined the Mysore Government service on July 17, 1905, with the appointment



Mr. C. H. YATES.

of Superintendent, Government Central Press, at which practically all the printing work required by the Government is carried out. This press employs some 400 hands, and all descriptions of up-to-date printing operations are here carried out, including type-casting, stereotyping, and lithographic work. Mr. Yates is also ex-officio Superintendent of the Stamp Manufactory, and Registrar of Authorised Publications in Mysore. His duties include the compilation of the "Mysore Gazette," an official periodical published by the Government. Mr. Yates holds a first-class Honours Certificate for Theoretical and Practical Compositor's work under the City and Guilds of London Technical Examination, 1888, and also a Teacher's Technical Certificate under the same Guild. He is at present one of the Examiners for the Madras Government Technical Examinations.



THE
STATE OF MYSORE.



H. H. SRI KRISHNARAJA WADIYAR BAHADUR, G.C.S.I.,
Ruler of Mysore.

H. H. SRI KRISHNARAJA WADIYAR BAHADUR, G.C.S.I.,

Ruler of Mysore.

HIS HIGHNESS SRI KRISHNA WADIYAR BAHADUR, G.C.S.I., Maharaja of Mysore, is the eldest son of the late Ruler of the State, Maharaja Sri Chama Rajendra Wadiyar Bahadur, and was born on the 4th June 1884.

On the death of his father, which took place on the 28th December 1894, vague rumours, which gave rise to some uneasiness, were current regarding the manner in which the Government of the State would be conducted during the minority of the young Maharaja, then only ten years of age. All doubts were dispelled, however, on the 1st February 1895, on which date the Maharaja was formally installed at Mysore by the then Resident, Colonel P. D. Henderson, and at the same time his mother, Her Highness the Maharanee Vani Vilasa Sannidhana, C.I., was proclaimed Regent. The Astrologers had been consulted as to the most auspicious hour for the ceremony, and the installation took place at noon, at the moment of the conjunction of Mercury and Venus, which had been conspicuous objects in the evening sky for some days before.

The education of the Maharaja, while he was a minor, was conducted in a manner suited to his rank and prospects; and the Government of the State was carried on by the Regent, with the help of the Dewan and three Councillors. The elementary training of the young Prince had been carried on at a Royal School, where he, with a few companions of suitable rank and limited number, was given instruction suited to his age. On the death of his father the system on which his education was being conducted was revised, and such special training added to his general education as was necessary to fit him for the work that lay before him. For this purpose Mr. Stuart Mitford Fraser, at that time a promising young member of the Indian Civil Service, and now Resident of Mysore, was appointed as his tutor and governor, a post which he continued to hold until the Maharaja attained his majority. When, in 1895, shortly after the installation of the young Maharaja, the Viceroy (the Earl of Elgin), visited Mysore, his advice to the Maharaja, in view of the cares thus early in life thrust upon him, was, not to hasten to be old too soon.

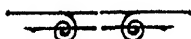
In 1900, two years before he attained his majority, the Maharaja was married to Pratapa Kumari Bai, the daughter of a Rajput Chief of Kathiawar, the Rana Sahib of Vana. The ceremonies on this occasion were carried out with unusual pomp and circumstance, and H. E. the Governor of Madras (Sir Arthur Havelock), with Lady Havelock, travelled from Madras to take part in the festivities and to convey the congratulations of Her Imperial Majesty the Queen-Empress and those of the Viceroy.

In 1902, the Maharaja, having attained his majority, assumed the direct control of the State, the Installation ceremony being performed by the Viceroy (Lord Curzon), who, in the course of his speech on that occasion paid a high tribute to the Maharanee-Regent on the manner in which the administration of the State had been carried on during her Regency. In alluding to the Maharaja, he said, that he had passed through a minority of nearly eight years. "These have not been idle or rapid years spent in enjoyment or dissipated in idleness. They have been years of careful preparation for the duties that lay before him, and of laborious training for his exalted state. He has made frequent tours among his people, and has studied their wants and needs at first hand, and has thereby acquired the knowledge which will enable him to understand the problems with which he will be confronted." In the six years that have since passed, His Highness has justified the confidence expressed by the Viceroy at his installation. It is a noteworthy fact that, since the Rendition, the Mysore State, under the guidance of wise Rulers and sagacious Dewans, has afforded the best proof possible of the wisdom of the policy adopted when the experiment was tried of placing an Indian Chief at the head of a constitutional Government. The system in Mysore has worked efficiently and well. The authority of the Ruler has been well maintained, while the administration has been in Indian hands, and there has been no necessity for that frequent interference by the British authorities which in some other States has often been unavoidable. The personal influence of the present Maharaja, like that of his father, has been strong, and he has surrounded himself with trustworthy and tried Councillors, so that the work of administration has proceeded smoothly, the development of the resources of the Province has proceeded apace, and the measures for the improvement of administrative efficiency, the advancement of educational facilities, and the improvement of the means of communication, have kept pace with the progress of the State in other respects.

His Highness is a busy man, and in addition to the hours daily devoted to affairs of State, a substantial portion of his time is taken up with the administration of the Palace and business of a more private nature. Every public movement has his sympathy and assistance, while his charities are widespread and catholic in their application. Although not keenly interested in racing, the Maharaja is a liberal supporter of the Mysore and Bangalore

race-meetings, and worthily maintains the traditions of sport and hospitality in Mysore. At Ootacamund where he spends a month or two of the hot weather every year, he is well known as a hospitable, genial host and an ardent supporter of the Ootacamund hunt. He is a good horseman and a first class whip, a polo and racquet player of more than average merit, and a musician of taste and ability. He is also a keen motorist, drives his own cars, and handles them with skill.

The Maharaja was present, with a large retinue, at the Delhi Durbar in 1903; early in 1906 he had the honor of entertaining T. R. H. the Prince and Princess of Wales at Mysore, and at the end of that year (1906) he paid a visit to Calcutta. At Agra, in 1907, on the occasion of the visit of the Amir of Afghanistan, he was invested by the Viceroy with the Grand Commandership of the Star of India; an event which was made the occasion of public manifestations of joy in Mysore.



History of the State of Mysore.



VIEW OF MYSORE CITY.

MYSORE is a Hindu State in Southern India, lying between the 11th and 15th degrees N. lat. and 74th and 79th degree E. long., and entirely surrounded by British territory. Its area, including the Civil and Military station of Bangalore, is 29,444 square miles. It is high-lying land, situated in the angle where the Eastern and the Western Ghat ranges converge into the group of the Nilgiri hills. The country naturally divides itself into two separate regions, each of which has well-marked and distinctive features as to climate, cultivation, and general appearance. Its extreme breadth from east to west is about 200 miles, and extreme length from north to south about 230 miles. One striking physical feature of Mysore consists in the huge

piles of rocks known as *Drugs*, rising abruptly in many parts to 1,500 feet above the Plateau; some solitary, others clustered, and which are everywhere visible. Most of them have been fortified from time immemorial, rendering them well-nigh impregnable strongholds, with the advantage of an unfailing supply of water at the summit. The Eastern Ghats form the frontier on the east, and separate Mysore from the British Provinces in the Carnatic. In many parts the ascent over them into Mysore is steep, while in others it is an easy gradient. The country rises gradually from these ghats towards Bangalore, which is situated in the most elevated portion of the Mysore plateau, upwards of 3,000 feet above sea-level. On the north-west, beyond the Chitaldrug

range of hills, there is a gradual fall through the broad valley which leads to the Tungabhadra river, near the village of Harihar, the altitude of which above the sea is only about 1,800 feet. To the south-west, by Seringapatam and Hassan, there is a more marked descent, abruptly terminated by the western range of ghats, comprising in this direction the Nilgiri and Coorg hills, and further north the Manjarabad and Nagar ranges, known as the Malnad, or hill country, the chief peaks of which are loftier than those of the eastern hills. The loftiest elevations in Mysore are, on the east, Sivaganga, about thirty miles from Bangalore, reaching a height of 4,559 feet, and Nundydroog, 36 miles from Bangalore, 4,810 feet, from whence the river Pennar takes

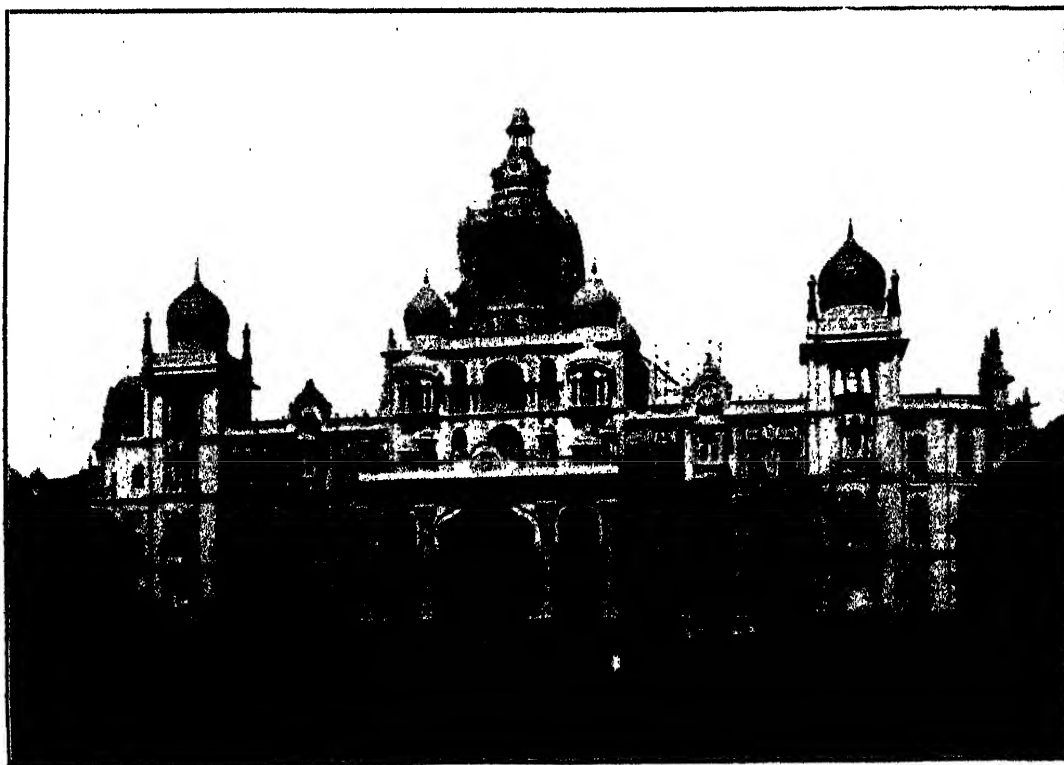
its rise, and the peaks of the Bellakalrangan hills in the Ashtagram division, varying in elevation from four to five thousand feet. On the west, Kuduremukha in the Nagar division, 6,215 feet, is one of the highest peaks in Mysore, and a remarkable landmark, visible from the sea as well as from above and below the ghats. There are also the Baba Budan mountains in the Nagar division, named after a Mahomedan saint, whose tomb is on one of the peaks at an elevation of 6,214 feet, the highest point on this range being Mulainagiri, 6,317 feet.

The drainage of the country, with unimportant exceptions, finds its way into the Bay of Bengal, and is divided into three great river systems—the Cauvery in the south, the Krishna in the north, and the North Pennar, the Palar, and the South Pennar rivers, which flow from the hills in the eastern part of the State. There is a central water-parting ridge, about 3,000 feet in elevation, which separates the river system of the Krishna from that of the Cauvery. To the north of this ridge are the sources

of the Vedavati, the Tunga, and the Bhadra, the two last-named uniting at Kudli in the Shimoga district and there forming the Tungabhadra. These rivers join the Krishna in British territory. South of the ridge is the basin of the Cauvery and its tributaries, the Hemavati, the Shimsha, the Arkavati, the Kabini, and the Honnuhole. The Cauvery as it passes out of Mysore is precipitated over a fall of 300 feet at Sivasamudram, and these falls have within the past few years been utilised by the Government of Mysore for the generation of electric power, and the machinery of the Kolar Gold Fields is worked thereby. The only river of any importance flowing westward into the Arabian Sea is the Saraswati which on the north-west boundary has a drop of 960 feet, forming the falls of Gersoppa. Owing to its situation between the Eastern and Western Ghats the province has the benefit of both the N. E. and S. W. monsoons, and from the peculiarities of its physical features it comprises some very wet as well as some very arid tracts. The average rainfall

varies from 356 inches on the top of the Agumbe Ghat, to less than 18 inches in the districts of Hiriya and Challake where the great Marianave reservoir, constructed for protective purposes, is practically complete.

According to the Census of 1901 the population of Mysore, including the Assigned Tract of the Civil and Military Station of Bangalore, was 5,539,399, and of these 92·05 per cent. were Hindus. Mussalmans numbered 5·23 per cent., and next came the Animists with 1·56 per cent., the remaining fraction of the people being made up of Christians, Jains, Parsis, Sikhs, Jews, Brahmos and Buddhists. Of the total population only 5 per cent. are literate, the other 95 per cent. being wholly illiterate. Literacy in the English language is microscopic, and is represented by ·4 per cent. of males and ·07 of females. Ninety-nine main castes are represented, and of these only three castes, (Vakkaliga, Lingayet, and Holaya) number more than 500,000 each. Of the entire population 34 per cent. are actual workers, the remain-



THE MYSORE PALACE.

der being dependents. Agriculture gives employment and support to 66 per cent., while earth-work and general labour accounts for another 9 per cent. Four per cent. are employed in carrying on the work of administration, but only 2 per cent. are engaged in commerce.

HISTORICAL.

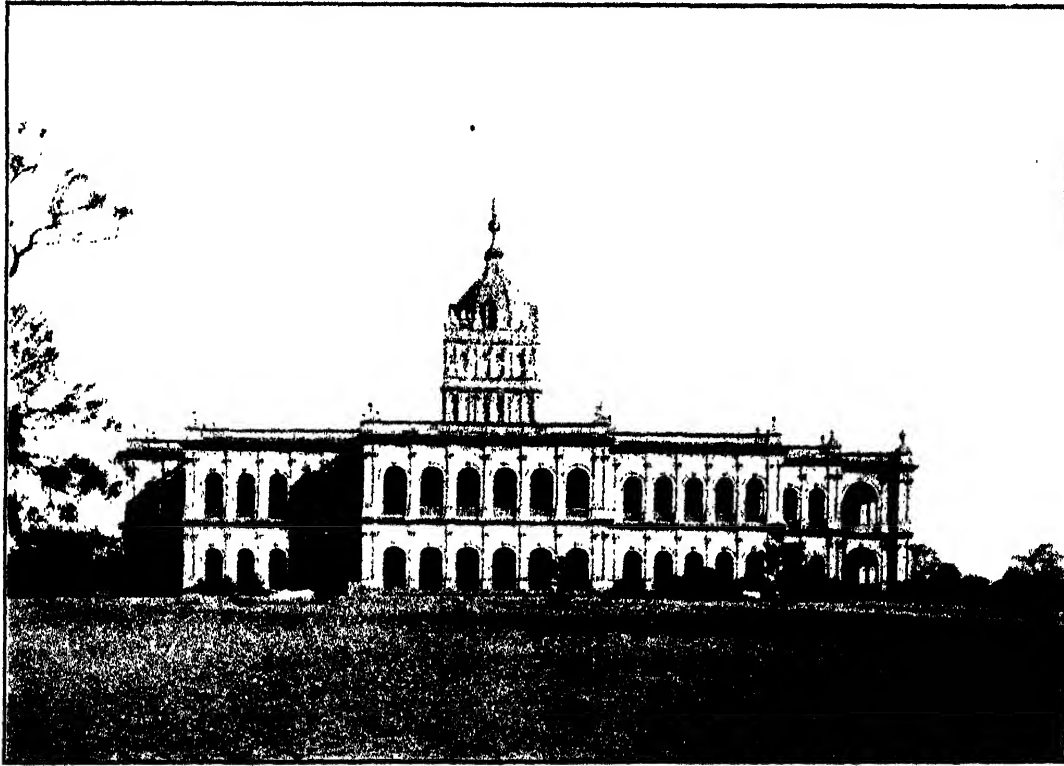
Mysore is the Premier Hindu State in India. Its Hindu rajas contrived to maintain more or less independence until the middle of the eighteenth century, when Hyder Ali

brought to light a mass of evidence which carries the history of Mysore, with scarcely a break in the sequence, as far back as the 3rd century B.C.; and there are traditions, both local and general, which connect the country with the great epics of the Ramayana and the Mahabharata. The labours and researches of Dr. Buchanan; Colonel Mark Wilks, distinguished as the historian of Mysore, at which Court he was for a time Resident; Colonel Colin Mackenzie, who subsequently became Surveyor-General of India;

of Rajputana. He was only a compiler. Colonel Wilks is better entitled to be called the Todd of Mysore.

Taking the historical period in India as commencing with the invasion by the Greeks under Alexander the Great, the earliest event in the annals of Mysore that may be regarded as authentic is in connection with Chandra Gupta, the first of the Mauryan Kings.

Chandra Gupta's grandson, Asoka, third in succession in the line of the Mauryan Kings, occupies a prominent position in the early annals of



THE PUBLIC OFFICES—MYSORE.

took possession of their country. It remained in his hands and in those of his successor, Tippoo Sultan, until the capture of Seringapatam by the British in 1799. Mysore was then restored by Lord Wellesley to the old Hindu dynasty. Up to a comparatively recent date it was considered by even those most conversant with the subject, that Mysore had no history, was quite a modern State and virtually unknown before the wars with Hyder and Tippoo brought it into prominence. Recent researches have, however,

Dr. Benjamin Heyne, and Dr. Buhler, brought to light much that is of historical interest. But it is to the investigations of Mr. B. Lewis Rice, C.I.E., and the information regarding the literature and ancient history of this part of India derived by him from antiquarian studies, that we are indebted for the early history of Mysore in a connected form. Mr. Rice, in his *Mysore Gazetteer* published in 1876 and since revised, did for the interesting State of Mysore what Colonel James Todd had, some years previously, done for the States

Mysore, and his remarkable Edicts have been found engraved on rocks and pillars in many parts of the country. From inscriptions, dating back to very remote periods, but which have only been recently discovered, it is established that the Satavahana dynasty were among the earliest rulers in the northern parts of Mysore, although the particular centuries during which they flourished are not sufficiently clearly indicated. One inscription tells of a King of this line who flourished in the 2nd century B.C., while other

rulers are mentioned as having lived in the 2nd century A.D. Furthermore, certain Satarkannis are mentioned, whose connection with the Satavahanas is not made sufficiently clear. There seems to be little doubt, however, that the Satarkannis were followed by the Kadambas in the north-west of Mysore, and this brings the meagre record up to the 3rd century A.D., and from this time on, the history of the country rests on a more solid basis of fact as elucidated by authentic records.

At this time the north-west of the country was, as stated, held by the Kadambas, while a part of the north was under the rule of the Rastrakutas, or Rattas. The east was held by the Mahavalis and the Pallavas and the centre and south were occupied by the Ganga. These latter partially subdued the Mahavalis, and in the 5th century the Chalukyas from the north reduced the Rattas and the Kadambas to the condition of feudatories. The first appearance of the Chalukyas south of the Nerbudda was in the 4th century, previous to

which they are said to have had fifty-nine predecessors on the throne of Ayodhya, but of these nothing is known. In the 7th century the Chalukyas overcame the Pallavas, who were also attacked by the Gangas. Early in the 9th century the Rattas regained power over the Chalukyas, and for a short time took possession of the Ganga kingdom, but restored it and formed an alliance with the Gangas, with whom also were allied the Nolambas, a branch of the Pallavas, established in the north-east of Mysore. In the 10th century the Rattas with the Gangas gained a great success over the Cholas, but the close of that century saw the Chalukyas once more in the ascendant, bringing the rule of the Rattas to a final end, while the Nolambas were uprooted by the Gangas.

The 11th century opened with a formidable advance of the Cholas from the south, and then began a struggle for the possession of what is now the estate of Mysore between the two powers, the Cholas in the south and the Chalukyas in the north, while the Gangas were for

the time being left to themselves. In the course of this struggle the first independent dynasty of Mysore came into being, that of the Hoysalas, who were at first feudatories of the Chalukyas. The first rulers of this dynasty distinguished themselves against the Cholas on behalf of the Chalukyas. Out of the turmoil that followed the Hoysalas gained considerable power and large extension of territory, and at a later period, when they had been largely instrumental in breaking the power of their former allies, the Chalukyas, they were able to play their part in breaking up the empire of the Cholas in the south, subsequently, however, entering into friendly relations with the Cholas. The Hoysalas ruled over the greater part of Mysore, and portions of the modern districts of Coimbatore, Salem, and Dharwar, with their capital at Dwarasamudra, the modern Halebid. Their sway extended into the early years of the 14th century, when a Mahomedan invasion from the Deccan overthrew the Hoysala dynasty. This Mahomedan inroad, while it



THE PUBLIC OFFICES—BANGALORE.

left its effect on the history of the Hindu State, belongs by right to the history of the Deccan, for it was made at the instance of Ala-ud-din, who founded the earliest of the Mahomedan dynasties in the Deccan, which received the name of the Bahmani dynasty, and subsequently went to pieces. In the year 1310 the Hoysala king was captured by Malik Kafur, the general of Ala-ud-din, and seventeen years later the Hoysala capital was entirely destroyed by another expedition under Muhammad Tughlak.

Vijayanagar and the Bahmani kingdom in the Deccan, which led to a continual succession of wars and alliances between the two until at the end of the 15th century the Bahmani empire was dismembered and broken up into the five States of Bijapur, Ahmednagar, Golconda, Berar, and Bidar. In 1864 the Mahomedan principalities in the Deccan resolved to combine in an attack upon Vijayanagar, and the allied armies of Bijapur, Golconda, Ahmednagar, and Bidar assembled at Bijapur prepared to march south.

Talikota, about ten miles south of the Krishna, near Raichor. In the battle that ensued the Vijayanagars were utterly routed. The Hindu and the Mahomedan versions of the manner in which the engagement was fought and won differ very considerably; but they both agree as to the main fact, that the defeat was a terrible and decisive one, and that the slaughter was immense. Rama Raja was killed during the fight. The mutual jealousies of the Mahomedan allies prevented any one of them from



THE MAHARANI'S COLLEGE -MYSORE.

After the subversion of the Hoysala dynasty a new and powerful Hindu sovereignty arose at Vijayanagar. The Hoysalas easily came under the sway of the rising power, and the province of Mysore was amongst the earliest acquisitions of Vijayanagar. The new dynasty was founded in 1336, and the site selected for the capital was on the banks of the Tungabhadra. The Vijayanagar sway lasted for 380 years, and the period was one of flourishing prosperity, marred, however, by the rivalry between

The Vijayanagar ruler, Rama Raja, thought lightly of the impending danger, but took prompt steps for the defence of his territory by sending his brother Tirumala Raja, with a strong force to defend the forts of the Krishna; another division followed under his brother Venkata-dri, while the king himself brought up the rear with the main body of the army. By a feint, the Mahomedan forces succeeded in crossing the river, and on the 25th January, 1565, the two armies were face to face on the historic field of

extending his kingdom by the appropriation of conquered territory.

This brings us to the period which saw the rise of the Mysore Rajas, the dynasty which now rules Mysore. During the 15th and 16th centuries the Vijayanagar rulers had from time to time bestowed on or confirmed to vassal chiefs bearing various titles, certain districts in Mysore, and after the dissolution of the empire, following on the battle of Talikota, such of these local chiefs as possessed the power began to assert their independence.

The most important of these was the Wadiyar Raja of Mysore, who after wiping out several petty rivals, seized the Fort of Seringapatam in 1610, ousted the effete Viceroy of the Vijayanagar who held it, became the dominant power in that part of the country, and so laid the foundation of the present State.

The dynasty of the Wadiyars of Mysore dates from the commencement of the 13th century, when two brothers, Vijaya Raj and Krishna Raj, came to Mysore and established a rule which, commencing with a few villages, now comprises the whole of the Mysore territory. The Wadiyar Raja who took the fortress of Seringapatam from the Vijayanagar dynasty was the ninth chief in succession in his line. He ruled from 1573 to 1617, and during this period he extended the possessions of his family over the whole of the south of the present Mysore district, and also captured several places of importance in the north from Jagadeva Raya, one of the petty chieftains of the day. Chama Raja, who succeeded Wadiyar Raja, further extended his territory, and by the capture of Chanapatna in 1630 absorbed the whole of the territories of Jagadeva Raya into the Mysore State, and he completed what remained for conquest in the south. His policy was carried on by his immediate successors, one of whom Narasa Raja, successfully defended Seringapatam against an attack of the Bijapur forces, and subsequently carried his conquests over many districts in the south, east, and north. Other important acquisitions of territory followed, and by the beginning of the 18th century the Mysore kingdom extended from Sakkarepatna in the west to Salem in the east, and from Chiknayakanhalli in the north to Dharapuram (Coimbatore district) in the south. The making of Mysore was thus practically complete, and the work of organisation was taken in hand. The direct descent in the Wadiyar line failed on the death of Dodda Krishna Raj in 1731, and thenceforth the real power remained in the hands of the hereditary General of the forces, by whom the Rajas of Mysore were selected.

The first intercourse between the British Government and Mysore was during the struggle for the supremacy of the Carnatic, at which time Mysore was still under Hindu rulers. In this war Hyder Ali, who was destined to supplant the Native dynasty by Mahomedan rule, commanded a force which the Maharaja of Mysore had sent to take part in the operations at Trichinopoli. By intrigue and force Hyder soon raised himself to the chief power in Mysore, and eventually deposed the Hindu ruler Chikka Krishna Raj Wadiyar; he assumed the government of the country in 1761. Two years later the Bombay Government concluded a commercial treaty with Hyder, and in 1766, after his conquest of Malabar, Hyder confirmed all the grants and privileges acquired by the Bombay Government in Malabar.

The rapid extension of the conquests of Hyder over the neighbouring districts made his power dangerous to the peace of the East India Company's possessions in the Carnatic. Therefore, in the treaty concluded with the Nizam in 1766, the Company agreed to assist him with a force against Hyder. Scarcely had the treaty been concluded when the Nizam deserted the alliance, and joined Hyder in invading the Carnatic. Their united forces were defeated by the British, and the Nizam was detached from the alliance with Hyder by the treaty of 1768. Hyder persevered with the war on his own account for some time, but eventually a peace was patched up on the footing of mutual restitution of territory and a defensive alliance. It was under this treaty that Hyder claimed the assistance of the British when, later on, he was engaged in a war with the Mahrattas. His request was refused, and he was forced to make terms with the Mahrattas on most unfavourable conditions. Eventually he recovered most of the territory that had been wrested from him, but he never forgave the British for refusing him assistance, and when, in 1778, war was declared between England and France, he considered that his time for revenge had come. The British had determined to drive the French from all their possessions in India,

and Chandernagore, Masulipatam, Karikal, and Pondicherry all surrendered without a blow. There remained to the French only the small station of Mahé on the Malabar coast, situated in the territory of a petty chieftain who was tributary to Hyder. The British determined to attack Mahé, notwithstanding the threat of Hyder to retaliate by an invasion of the Carnatic. Mahé was taken in 1779, and in the following year Hyder invaded the Carnatic with a large force, at a time when the British were pressed for money and troops, and despite many brilliant successes in the campaign that ensued, the British were unable to effect anything decisive. On the death of Hyder in 1782, the war was prosecuted with unabated vigour by his son, Tippoo, who at first received the whole-hearted support of the French. But the declaration of peace between the English and French, and the consequent withdrawal of French troops, left him too weak to prosecute hostilities alone, and a treaty of peace was concluded in 1784. Tippoo lost little time in violating the treaty, and in 1789 fighting was renewed and continued till 1792, when Tippoo threw himself upon the mercy of the British, and as a result, another treaty was concluded at Seringapatam in March 1792, by which Tippoo was stripped of half his dominions. When, three years later, hostilities broke out between the Mahrattas and the Nizam, Tippoo, who had commenced intrigues with the French, the Mahrattas, and the Nizam, almost immediately after the treaty of Seringapatam, assembled his army and threatened to join the Mahrattas against Hyderabad. In 1798 he sent ambassadors to the Isle of France to raise volunteers for the purpose, publicly avowed and proclaimed, of expelling the British from India. The remonstrances of Lord Wellesley were ineffectual to induce Tippoo to come to friendly arrangements, and, in February, 1799, it became necessary for the armies of the British Government to march against him. The long-drawn-out struggle was terminated on the 4th of May of the same year by the fall of Seringapatam and the death of Tippoo, who fell bravely defending the fortress.

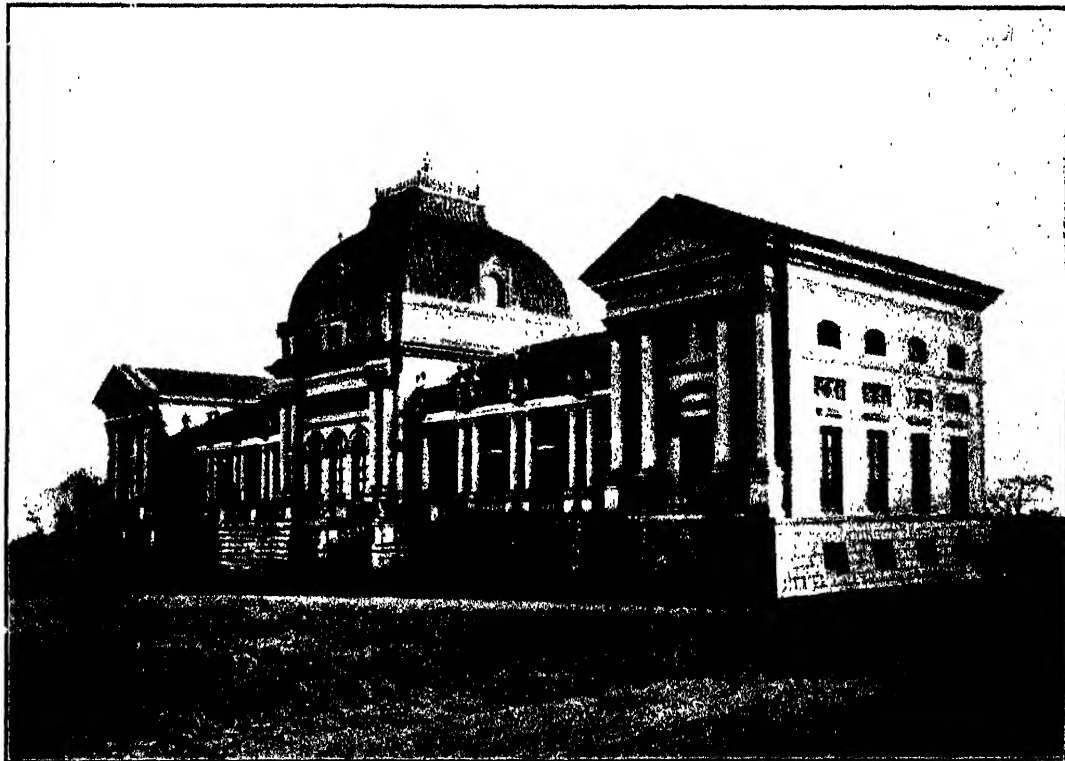
RESTORATION OF THE HINDU DYNASTY.

In disposing of the conquered territories it was considered that the partition of them between the British Government and the Nizam would afford just ground of jealousy to the Mahrattas, and would aggrandise the power of the Nizam beyond due limits. It was therefore resolved to create a separate Government in Mysore, and to bestow a portion of the territories on the Mahrattas, though they had taken

to its liberal intentions the Government concluded a subsidiary treaty with Mysore, to which the Nizam was not a party. This treaty provided for the location in the Mysore territory of a British subsidiary force, for which the Maharaja was to pay 7 lakhs of pagodas a year; reserved to the British Government the right to assume the whole or part of the Mysore territory if there should be cause to apprehend failure in the payment of the subsidy; required the Maharaja to contribute, to meet

with a view to terminate their dependence on the liberality of the British Government.

In December 1803 a supplementary treaty was framed to effect certain changes of territory with Mysore, and it was by this treaty that the British Government obtained undisputed possession of the districts composing the Wynaad which was one of the principal objects of the treaty. In 1807 the sum which the Maharaja was required to contribute was commuted to the maintenance by the



THE ORIENTAL LIBRARY - MYSORE.

no part in the war, on the condition that the grant should form the basis of a new treaty with them. The family of Tippoo was set aside and the Hindu dynasty was restored in Mysore under Krishna Raj Wodeyar, a child of three years of age, the grandson of the ruler deposed by Hyder nearly forty years before. He was not, however, made a party to the partition treaty concluded with the Nizam in July 1799, otherwise than as a recipient of the liberality of the British Government. But to give effect

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the extraordinary expenses of war, such sum as should be considered to bear a just and reasonable proportion to his revenues, and bound him to good government. The descendants of Tippoo were removed to Vellore in the Madras Presidency, where they were liberally provided for. After the mutiny at Vellore, in which they were believed to be concerned, they were removed to Calcutta, where they continued to reside as stipendiaries till 1860. A large sum was then capitalised as a provision for them,

Mysore Government of a body of horse in peace and war. During the minority of the Maharaja the administration was conducted by an able Brahman Minister named Purnaiya, who was invested with full powers. He continued in office till 1812, when he resigned the government of the country into the hands of the Maharaja. The period from 1812 to 1831 was marked by gross mismanagement, as to the initial cause of which there are various versions. Upon that point we need not enter. The

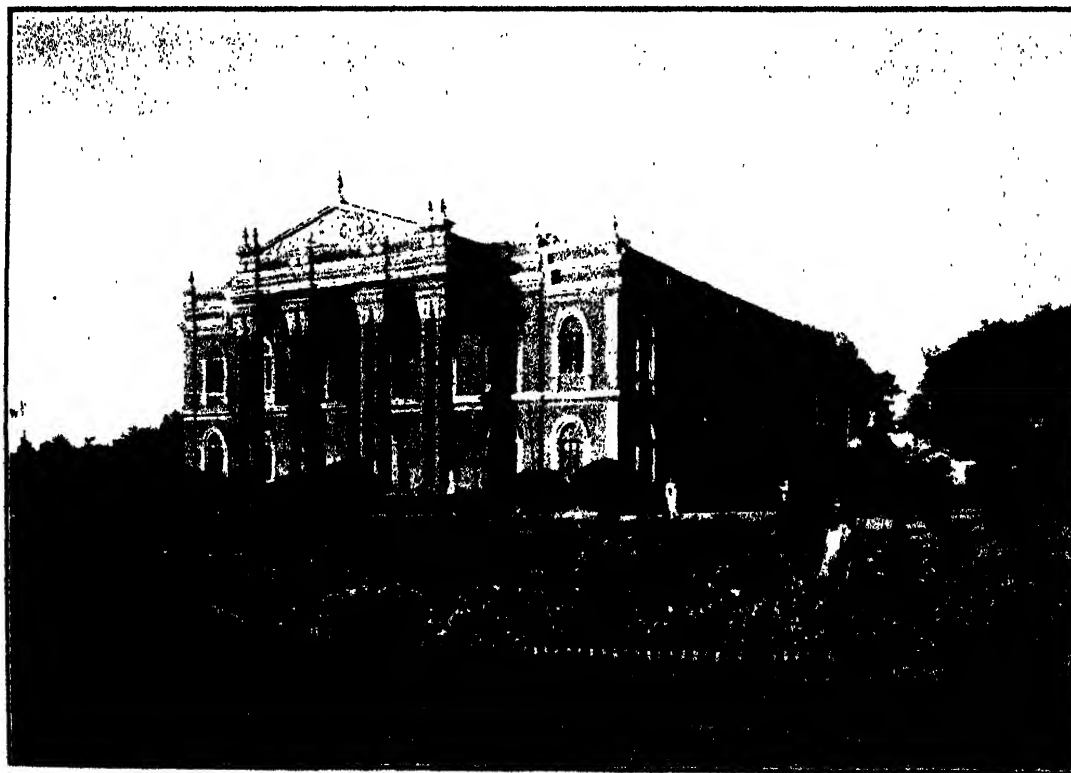
mismanagement was there, the pay of the troops fell into arrears, cruelty and extortion were practised, the ryots combined in resistance, and at last rebellion broke out, calling for the active exertions of a large body of British troops in addition to the whole military force of the Maharaja. In 1831 it became necessary for the British Government to intervene, and acting upon the provisions of the subsidiary treaty the Government assumed the direct management of the State, subject to the claim of the Maharaja, reserved by the treaty, to a provision of one lakh of star pagodas per annum, and one-fifth of the net revenue realised from the territory, until arrangements for the good government of the country should become so firmly established as to secure it from future disturbance.

In 1834 the Governor-General (Lord William Bentinck) visited Mysore, and shortly afterwards it was proposed that the Maharaja should cede the districts of Nagar, Chitaldrug, and Bangalore, with as much territory as, after paying

the expenses of management, would yield a revenue equal to the claim of the Government on the Maharaja, and that the remaining districts of the province should be restored to the Maharaja under securities for good government. This proposal fell through, and the government was carried on by a British Commission. From time to time the Maharaja made applications for the restoration of his State, which were refused on various grounds, and finally an appeal was made to Her Majesty the late Queen Victoria, which after careful consideration was declined. In 1868 the deposed Maharaja died, and the British Government resolved that when his adopted son, who was then only six years old, attained his majority, the government of the State should be entrusted to him. In 1879 it became necessary to settle the manner in which this resolution should be carried out. It was clear that upwards of 5,000,000 people, who had been under British rule for fifty years, could not be made over like sheep, and the conditions under which the transfer of the govern-

ment was to take place were embodied in a formal instrument. The following may be quoted as the main conditions—(1) A clear distinction must be drawn and permanently maintained between the private fortune of the Chief and the public revenues of the State; a civil list of fixed amount must be assigned to the Chief, and the rest of the revenues must remain available for public purposes only, through appropriation by constituted authorities. (2) There must be permanent security for the observance of established laws, rights, and usages, and the laws must only be altered by suitable legislative machinery. (3) Provision must be made for the judicial independence of the civil and criminal courts, and justice must be dispensed by regularly constituted tribunals. (4) The assessment and collection of the revenues must be made under fixed rules; all rights in the land must be defined and maintained, and no fresh taxation imposed except in accordance with law.

Under the principles thus laid down, and which have been acted



THE RANGACHARLU MEMORIAL HALL—MYSORE.

upon ever since, the administration was made over in 1881 to Chama Rajendra Wodeyar, the adopted son and successor of Maharaja Krishna Raj Wodeyar, he having been previously publicly installed as the future ruler of Mysore on the death of his adoptive father. One of his first acts after he had assumed charge of his dominions was to make over to the British Government, with full jurisdiction, a small tract of land at Bangalore, forming the Civil and Military Station of

Wodeyar died at Calcutta on the 28th December 1894, leaving as his heir an infant son, and it became necessary for the Viceroy to appoint a Regent during the minority of the young Chief, the Maharaja Krishna Raja Wodeyar, who was duly installed on the Gadi at Mysore on the 1st January 1895. H. H. the Maharani Vani Vilasa Sannidhana, the mother of the young prince, was appointed Regent, and she, with the help of a Dewan and three Councillors, conducted the administra-

ADMINISTRATION.

Regarding the ancient forms of government under the early Hindu rulers, some information has been gathered from inscriptions. The earliest of these are the Edicts of Asoka, discovered by Mr. B. Lewis Rice, and from these it is gathered that the Ayaputa or prince was in charge of the provincial government, assisted by Mahamatras. Coming to a later date we find the Maha-Pradhana Sarvadhikari, or Prime Minister, at the head of affairs under a Raja or King, and with him was



H. H. THE MAHARAJA'S PALACE—BANGALORE.

Bangalore, and for this he received in return the Island of Seringapatam. But the most important incident of the change was the signing of the instrument of transfer, by which the young Maharaja, for himself and his successors, undertook to perform the conditions imposed upon him. To that agreement the Maharaja steadfastly adhered during his reign, and the instrument is a landmark in the history of British relations with the protected States of India. The Maharaja Chama Rajendra

tion. The wisdom of the choice was shown by the intelligence and dignity which, throughout the minority, she showed in the management of the affairs of the State. Her son received an excellent English education, and careful training to prepare him for the proper performance of his future duties, and in 1902, having attained his majority, he assumed direct control of the administration, and was formally installed as Maharaja by the Viceroy (Lord Curzon) at Mysore.

generally associated, when of sufficient age, the Yuva Raja, or heir-apparent to the throne, and a number of other Mantris or Councillors assisted in the deliberations of state. Then followed the land settlement of the Kadamba kingdom, and the assessment under the Hoysala kings. Under the Vijayanagar rulers, some of the original rayas were reinstated in their ancient possessions on submitting to be tributary vassals to them as superior lords. They also appointed some of their own slaves and servants, recommended by their

fidelity and ability, to manage tracts of uncultivated waste country with instructions to clear away the jungles and to bring the lands into culture, with a view to increase the population, the wealth of the State, and the prosperity of the land by good management. Under the Rajas of Mysore in the south, about 1701, Chikka Deva Raya, one of the most progressive of their rulers, distributed the business of government into eighteen cutcherries or departments, probably owing to his having learned from his ambassadors to Aurangzebe that such was the practice at the Imperial Court. It is certain that under the Rajas of Mysore the revenues were realised with great regularity and precision. One-sixth was the lawful share of the crop for which the Raja received the equivalent in the currency of the time. He was unwilling to incur the odium of increasing the proportion by direct means, so had recourse to the law of the Shastras, which authorised him, by no very forced construction, to attack the husbandman by means of quite a variety of vexatious taxes which should compel him to seek relief by desiring to compound for their abolition by a voluntary increase of the landed assessment. Hyder Ali, when he came into power, followed generally the regulations previously established, and the peculiar laws and customs of the different provinces. But he was at all times accessible to com-

plaints, and never failed to pursue to its source the history of an irregular demand, and to recover it with an additional fine from the exactor. True it is that the amount was never returned to the complainant, but it frequently brought about the dismissal of the offender, and, as Hyder was accustomed to say, rapacity in this case was nearly as good for his subjects, and much better for himself than a more scrupulous distribution of justice. For though he left the fiscal institutions of Chikka Deva Raya as he found them, he added

to the established revenue whatever had been secretly levied by a skilful or popular Amil and afterwards detected. This produced a progressive and regular increase, and the result of complaints gave occasional, but also tolerably regular, augmentations. Brahmans, with the title of Harkaras, resided in each taluq, to hear complaints and report to the Revenue Department. Tippoo Sultan, when he succeeded his father, did not approve of the old regulations, and he introduced a new system throughout the whole of his dominions. He divided

the whole into tukadis of 5,000 pagodas each, and to each of these was attached an official establishment. To every 20 or 30 tukadis a cutcherry was established. He dispensed with the Harkaras appointed by Hyder, and this economy contributed much to the oppression of the people.

On the restoration of the Hindu rule after the death of Tippoo, the new administration under the Regent Purnaiya commenced its proceedings by proclaiming an unqualified remission of all balances of revenue, and the restoration of the Hindu rate of assessment. In the administration of justice, as in every other branch of the Government, due regard was given to the ancient institutions of the country and to the doctrines of Hindu law. The administration of the revenue was committed, under the control of three powerful Subadars,



STATUE OF QUEEN VICTORIA—BANGALORE.

to Amils presiding over taluqs sufficiently limited in extent to admit of diligent personal inspection of the whole of their charges. Previous to this time no revenue survey of the land appears to have been made, but Dewan Purnaiya caused all the fields to be measured, though the work was but incompletely and irregularly executed. On the British assumption of the Province in 1831, the maintenance, as far as possible, of existing native institutions, was expressly enjoined. The task that then lay before the Commission, therefore, was not to inaugurate a new system of government, but to reform flagrant abuses in the old, to liberate trade and commerce, to secure the people, especially the agricultural classes, in their just rights, and to develop the resources of the country generally. The revenue system followed was the Ryotwari, and it was brought back as far as possible to the state in which it had been left by Purnaiya, but liberalised in all its details and vigilantly superintended in its working. The system of government adopted from 1831 to 1855 was that known as the non-regulation, and the visit of the Governor-General, Lord Dalhousie, to Mysore at the end of 1855 marked the termination of the exclusively patriarchal and non-regulation system, which, under the statesmanlike control of Sir Mark Cubbon, and the exertions of his select body of able administrators, had achieved results beyond all praise. Then followed the transition period, 1856--1862, in which a Judicial Commissioner was appointed to relieve the Commissioner of a branch of work which had attained to large dimensions. Regular departments for Public Works and Education were formed, the Commission was reorganised, and the territorial transfers and changes of jurisdiction involved in these, coupled with the revision of subordinate establishments, the introduction of the Penal and Criminal Procedure Codes, and the modern financial system of Budget and Account, necessarily affected every public department. In the third period of British control the government was conducted on the Regulation System,

and it was towards the close of this period that a most disastrous famine carried off one-fifth of the population of the province, extinguished the accumulated surplus balances, and created a debt of nearly one crore of rupees, due to the British Government.

Then came the Rendition, and when in 1881 H. H. Sri Chama Rajendra Wodeyar was invested with the administration of the State, one of his first acts was to initiate measures for the protection of his territory against the consequences of future famines. The administrative policy of the Maharaja was one of progressive decentralisation, and his rule was attended with remarkable financial success. It was during this period that the now important gold-industry obtained a sound foothold in Mysore, and in 1886-87 royalty on gold formed, for the first time, an item in the State revenue. The Maharaja signalised the restoration to native rule by creating a Representative Assembly, composed of 350 of all classes, who, in the absence of special cause, such as plague, meet annually to hear an account of the State administration for the previous year. His rule was marked by the extension of railways, the advancement of important schemes of irrigation, the development of the Kolar Gold Fields, and the maintenance of its high standard of administration. The present system of government is based mainly on the British Indian system introduced into the State in the time of the British Commission. The Maharaja, as ruler of the State, is the final authority, and the administration is conducted under his control by a Dewan and two Councillors, and there has recently been created a Legislative Council which, together with the Representative Assembly, which has much increased in importance since the days of its institution, exercises a considerable amount of influence, indirectly, upon the doings of the Executive. When the government was transferred, it was provided that all laws then in force should be maintained until altered by competent authority; new laws can only be made under a regular system of procedure, and they require the sanction of the Governor-General in Council.

THE RESOURCES OF THE COUNTRY.

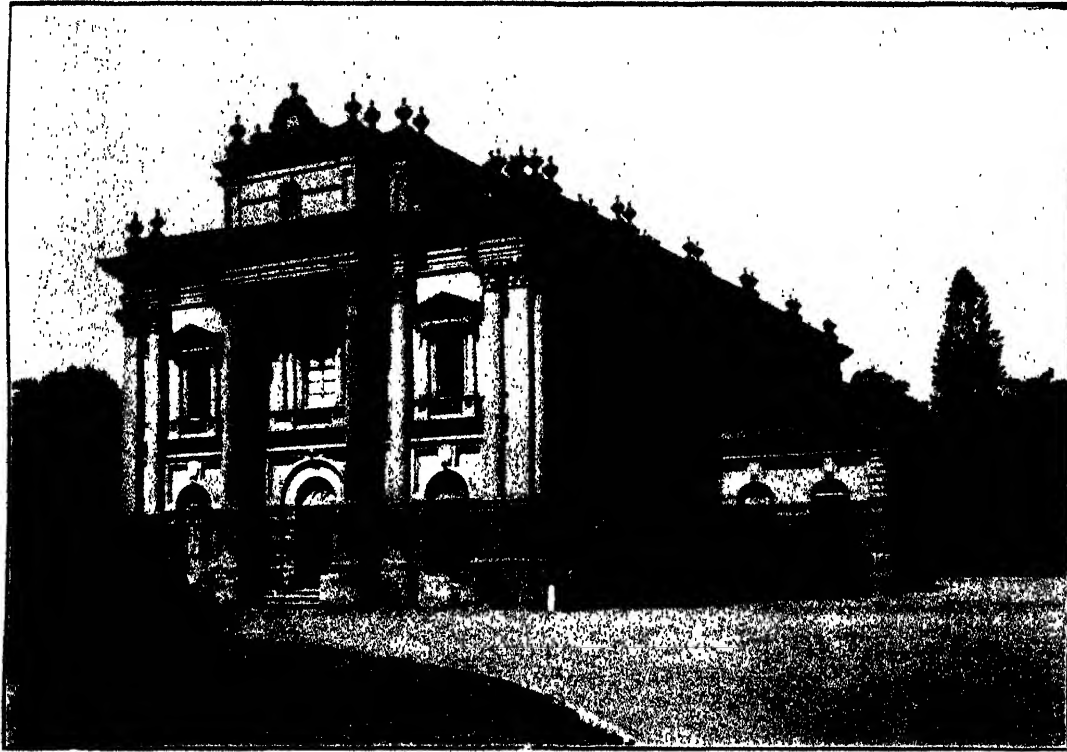
For administrative purposes the Province of Mysore comprises eight Districts. Physically, however, the province naturally falls into two divisions, known respectively as the Malnad and the Maidan country. The three western districts of Hassan, Kadur, and Shimoga are malnad or semi-malnad, while the remaining five districts of Mysore, Bangalore, Kolar, Tanjur, and Chitaldrug are maidan. The malnad or hill country is a land of magnificent hills and forests, presenting alternations of most diversified scenery. The sheltered hillsides are beautiful with waving woods, which afford shade to numerous plantations. Of human habitations there are but few, and a cottage here and there, picturesquely situated on the rising ground bordering the rice-fields, and hidden amid plantations of areca palm and plantain, marks the home of a cultivator and his family. The soil is fertile, and although the only cereal grown in these districts is rice, plantations of coffee, pepper, cardamoms, areca, plantains, lemons and oranges, flourish exceedingly. But by far the greater portion of the province belongs to the maidan or open country division, although much of the intermediate region partakes of the characteristics of both malnad and maidan. On the level plains of the north, with their black alluvial soil, grow cotton and millet; in the districts in the south and west, irrigated by channels of water drawn from rivers, are the sugar-cane and rice-fields; the higher lying undulating tracts of red soil in the east yield ragi and associated crops; the lands under tank irrigation are occupied by gardens of cocoa and areca palms, while the stony and wide-spreading pasture lands in the central parts are covered with coarse grass and relieved by shady groves of trees. Roughly calculated, about 17 per cent. of the entire area of the province is malnad, and the remaining 83 per cent. is maidan.

But although Mysore is essentially an agricultural country, the most remarkable industrial development of late years has been in connexion with gold-mining, and

Mysore has now acquired a definite place among the gold fields of the world, the main source of supply at present being the Kolar Gold Fields. There is ample evidence that mining operations were carried on by the natives, in a crude way, from very remote times, and the workings subsequently abandoned. The Kolar Gold Field occupies a small tract of country about 60 miles from Bangalore, and is situated to the east of a low ridge in the Bowringpet taluq, on the eastern boundary of the State. The existence in this

commenced operations in 1875, but finding that large capital would be required for carrying out the work, he, with the approval of Government, transferred all his rights and concessions to Colonel George de la Poer Beresford, and this officer with some friends among racing men formed a syndicate known as the Kolar Concessionaires, and took up the enterprise in earnest. Under the original concession Mr. Lavelle was at liberty to select ten blocks of land, each of two square miles in area, and for each of these blocks

John Taylor and Sons, London, a firm of mining engineers, and there was for a time a regular boom in Mysore gold shares. Rules for mining leases in other parts of the country were drawn up on terms similar to those obtained by the Kolar Concessionaires. As regards these latter, the Government, in 1886, finding that they were realising vast sums by sale of land containing gold, issued new regulations by which the Concessionaires had to pay to the Government one-tenth of the consideration for every



THE GOVERNMENT MUSEUM—BANGALORE.

locality of old workings had long been known, but it was not until 1873 that any special attention was directed to them. In that year Mr. M. F. Lavelle, a retired army officer with some knowledge of geology, who was residing at Bangalore, applied to the Chief Commissioner for the exclusive privilege of mining in the Kolar District, and after some delay his request was granted on certain terms. This was the original Kolar Concession, and it was limited to three years. Mr. Lavelle

the Government undertook to grant a lease for a period of twenty years, reserving a royalty of 10 per cent. on the value of all gold, coal, etc., extracted. When the Kolar Concessionaires took over Mr. Lavelle's rights in 1877, the term of the concession was extended, first to 1880 and subsequently to 1883, and the terms of the leases thereunder from 20 to 30 years. At the same time the royalty was reduced from 10 to 5 per cent.

By 1881 the Concessionaires had secured the valuable aid of Messrs.

assignment of a lease. It was at this period that the Government had the country generally surveyed with reference to auriferous tracts, and on the information thus obtained it was resolved to modify the existing rules by providing for the grant of prospecting licenses; by making the grant of a lease conditional on a Company being formed within two years with a paid-up working capital of not less than £5,000 per square mile; and by reserving to Government the right to limit the total area to be leased for the time being, and to

dispose of mining leases for such area by public competition. By 1895 there were thirteen Companies at work, representing a capital of £3,500,000, and in what had previously been a desolate waste, a large and flourishing town has sprung up, provided with most of the conveniences and institutions of European life and finding employment for thousands of people. There are at the present time about 40 square miles held under lease from the Mysore Government by various mining Companies, and the industry gives employment to nearly 30,000 people, of whom over 800 are Europeans and Eurasians. The residential population of the mines is about 100,000, and the amount paid monthly in salaries and wages amounts to Rs. 6,40,000. Here comes in the labour question, which owing to unsettled economic conditions, is more or less acute all over India. Despite the fact that in no other part of the world is it possible to find better arrangements, or greater consideration evinced for the welfare of the miners employed, than upon the Mysore gold-fields,

the supply of labour offering is wholly inadequate, and not by any means of the best.

The following figures will give some idea of the position of the industry to-day: The paid-up capital employed on the Kolar Gold Fields is £2,140,500, but the present valuation of that capital on the British Market is £4,796,500. The total value of the gold produced from the commencement of mining operations to the 31st December, 1907, is £27,600,739, and the royalty paid to the Mysore Government on that amount approximates £1,371,327. The total amount paid in dividends up to the 31st December, 1907, stands at £12,019,833.

The following figures show the quantities of Quartz and Tailings treated, and of the principal materials consumed in the period 1898—1907 inclusive:—Quartz crushed, 5,443,293 tons; Tailings treated 5,305,025 tons; Coal consumed, 1,580,956 tons; Firewood consumed, 139,846 tons; Gelatine and Dynamite consumed, 6,522,207 lbs.; Timber used, 6,300,753 cubic feet;

Candles consumed, 6,793,415 lbs.; Mercury, 135,043 lbs., and Cyanide, 4,702,310 lbs.

Until the year 1902 all the machinery in the mines was worked by steam power, but in August 1902 the completion of the Cauvery Power Works brought about a complete revolution in the working of most of the mines on the field, whereby 4,000 H.-P. of electric energy was transmitted to the Gold Fields from the Cauvery Falls Power Station. The entire success of the scheme is thoroughly emphasized by the fact that the output of the plant has been recently almost doubled, in order to meet the demands of the Kolar gold mining companies for the cheaper power thus afforded. Provision has been made whereby the city of Bangalore, which has 180,000 inhabitants, has been supplied with light and power over a separate sixty-mile 35,000 volt transmission line. In December of 1904 was completed the second installation, or extension of 3,610 kilowatts generator capacity, thus increasing the possible output of the plant to



THE LAL BAGH—BANGALORE

7,920 kilowatts. Power is transmitted at a pressure of 35,000 volts over duplicate three phase lines, a distance of ninety-two miles, to the Kolar Gold Fields, where it is utilized almost entirely in mining operations. The Cauvery river falls are located near the site of the old Hindu village of Sivasamudram. Arrangements have been made for the lighting of the City of Mysore, which are now under completion. The city will be supplied with a light and power over a separate forty-mile transmission line from Sivasamudram. The Cauvery river is the dividing line between Mysore province and the Madras Presidency. At this point a fall of nearly 400 feet, giving an average calculated horse-power of approximately 12,000 during the dry season of the year and a maximum of over 200,000 horse-power at times during the monsoon or rainy season.

In 1904 a project for the supply of pure filtered water to the inhabitants of the Gold Fields was brought to completion with the opening of the Bethmangala Water Works, and the public have been provided with a Town Hall and a Civil Hospital. The hall, which is known as Coronation Hall, was erected by Mr. Hajee Ismail, an enterprising merchant of the locality, at a cost of 30,000 rupees, and it is frequently loaned out for purposes of weddings, receptions, and public meetings. Suburbs are springing into existence, and at Robertsonpet there is a good market and some fine buildings, with branches of the businesses of some of the principal traders of Madras and Bangalore.

The Manganese industry in India is of quite modern growth, dating back to only 1892, and the principal sources of supply were, until recently, Vizianagram in the Madras Presidency, the Central Provinces, and Central India. Within the past few years, however, valuable deposits of manganese have been discovered in Mysore, principally in the Shimoga district, which should add materially to the mineral resources of the State. Increasing attention is being given to prospecting, and new deposits are being discovered. At first, owing to the success of the Mysore Manganese Company, Ltd., there was a rush for

manganese lands, and restrictions had to be imposed, but in 1906 a portion of the Shimoga district was thrown open to prospectors, and as a tentative measure it was decided to permit manganese to be mined under prospecting licenses, for a period of three years, without insisting upon mining leases being taken out. Further consideration of the matter, however, showed that where actual mining operations were to be undertaken, involving a large outlay of capital, the issue of long period leases would be necessary, and that the tying up of large areas under prospecting licenses was undesirable. Measures are now being taken to provide for the issue of suitable leases, and to set free the large areas now held under prospecting licenses. The quantity of manganese ore obtained in 1906-1907 was 63,181 tons, of which 50,247 tons were sold for a total of Rs. 10,37,901. On this amount the royalty payable to the State was Rs. 20,209. A number of licenses for working the Chrome ore that has been located in the Hassan district have been issued, and prospecting operations are in active progress.

The metal most widely distributed through Mysore is Iron, which is obtained both from ore and from black iron sand. The iron ore is obtained in small irregular masses by digging a few feet below the surface, generally on low rocky hills, but in some places in the fields. The black sand is found in the rainy season in the nullahs or channels formed by torrents from certain hills. Smelting is carried on to a considerable extent in various parts of the province, especially in the Chitaldrug, Shimoga, and Kadur districts. A steam iron-foundry has long been established at Bangalore, and at Chik Ballapur there is a native foundry, where sugar mills and agricultural implements are made and repaired. Steel is made specially in Heggadadevankote, Malvalli, Kotagiri, and Madgiri taluqs. Steel wire drawing is carried on at Channapatna for the purpose of providing strings for musical instruments, and is of a quality that makes the wire sought for throughout Southern India.

A decided increase has been shown in recent years in the annual value of the manufactures of the State, and

these include textile fabrics, bricks and tiles, paper, glass-making, carpentry and turning, and the conversion of the produce of the country, such as oil-seeds, etc., into marketable form. Oil pressing is a very generally followed calling all over the country, and is mainly in the hands of the class called Ganigas. Imported kerosine oil has, however, to a great extent superseded the oils of local production for domestic use among all classes. Oil-mills worked by steam have been established at Mysore and Bangalore. The art of glass-making is principally, if not entirely, applied to the manufacture of bangles. The manufacture of soap and candles is carried on at Bangalore, where there is a steam factory; and among other manufacturing industries may be mentioned the building of carts and the making of implements for agricultural purposes, which in an agricultural country is an industry of more than ordinary importance; coach and carriage building, cabinet-making, in which the work turned out is of great excellence, copied from English designs; toy-making, and sandal wood carving. Channapatna is the centre of the toy-making industry, and the toys there made are eagerly bought up, by Europeans as well as by natives.

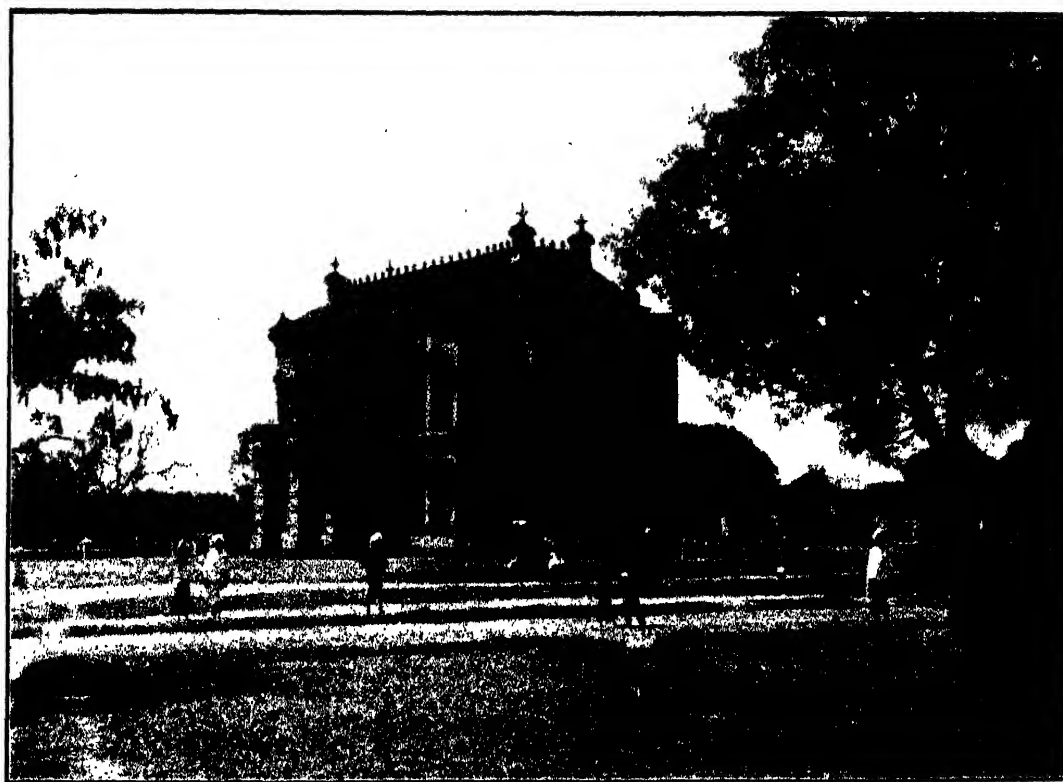
The expression of juice from the sugar-cane is an important industrial operation, and the cumbrous and tedious process which formerly obtained has now been superseded in many parts by the introduction of iron sugar-cane mills, which are expeditious in working, and express the juice more completely and with greater cleanliness. Tanneries have been established on a considerable scale near Bangalore, and a very pretty kind of red morocco leather used to be manufactured at Harihar. Among the textile fabrics manufactured are those of cotton, wool, silk, and a few from fibres. The spinning of cotton into yarn or thread is the occupation of large numbers of women of the lower orders. But before the cotton is ready for the spinning wheel, it is cleaned or separated from the seed by passing through a rude gin, and then, as it is too lumpy for spinning, it is fluffed up with a bow, which is the special occupation of a class of Musalmans called Pinjari. In addi-

tion to the cotton stuffs used for clothing, the principal are tape for bedding, carpets or rugs, tent cloth, and cordage. Of woollen fabrics the *kambli* is an indispensable article of clothing for almost all classes. Its manufacture is a characteristic industry, more especially of the Chitaldrug and Kolar districts, and of Mandaya and Hunsur in the Mysore district. For the finest kinds, made only in the Chitaldrug district, the best of which are of very high value and rarely made except to order, the fleece from the first shear-

borders, are largely manufactured in Bangalore, which is the centre of the silk trade, where raw silk is prepared in large quantities for the loom and dyed.

The forests of Mysore, which yield a considerable addition to the revenue, cover upwards of three thousand square miles, exclusive of the scrub jungle which grows on much of the waste land. Sandal-wood, which is a product principally of Mysore and a State monopoly, is found all over the country, but grows very unequally in different

tuneral pyre. The wood, either in powder or rubbed up into a paste, is used by all Brahmans in the pigments for making their caste marks. The oil forms the basis of many scents, and is sometimes used for disguising with its scent articles which, being really carved from common wood, are sold as if made from the true sandal. By far the greater portion of the wood sold in Mysore goes to Bombay, whence it finds its way principally to China, France, and Germany. The great source of revenue under Forests is the sale of



THE MAYO HALL.—BANGALORE.

ing must be used, and this is taken from the sheep when about six months old. The carpets of Bangalore are well known for their durable quality, and for the peculiarity of having the same pattern on both sides. The old patterns are bold in design and colouring. Silk fabrics, of stout texture and excellent designs, are made in Bangalore and Molakalmuru. Women of the wealthier classes are often richly attired in silk cloths on ceremonial or festival occasions, and these cloths, with and without gold and silver or gilt lace

parts. In colour and marking four varieties of the wood are distinguished:—bili (white), kempu (red), naga (cobra), and navilu (peacock), the two last named commanding fancy prices. The best parts are used for carving boxes, cabinets, desks, walking-sticks, and other fancy and ornamental articles. The roots, which are the richest in oil, and the chips go to the still; while the Hindus who can afford it show their wealth and their respect for their departed relatives by adding sticks of sandal-wood to the

sandal-wood, but the sale of the various timbers with which the forests abound also affords a considerable addition to the revenue.

The fruit supply of the province has always been good, but efforts are now being made to extend fruit-culture on a scientific basis, which, if they are successful, will be of great value to the fruit-growing industry, by the introduction of foreign varieties of fruit, and the demonstration of improved methods of cultivation. The fruits grown in native gardens includes most of the well-known

Indian varieties, with the addition of apples and grapes. Of mangoes there are many varieties, while plantains are very plentiful and in great request as an article of food. An assortment of English fruit is grown in the vicinity of Bangalore, and there are a large number of market gardens which supply the market with a fine selection of vegetables, both English and Indian, all the year round.

THE PRINCIPAL CITIES.

In the western division of the State of Mysore there are no cities whatever, and in the eastern division there are but two, if we except the Kolar Gold Field, which for the purpose of the Census of 1901 was reckoned as a city. Mysore is the capital of the province of that name, and in its present modernised state it is a model city. Its broad, clean gravelled roads; its ornamental buildings, well kept; its neatly railed gardens, fountains and monuments, give it a tone of airiness and salubrity very unusual in an Indian town. In Bangalore there is a different atmosphere altogether. In the Civil and Military Station, with its parade ground, guard-rooms and barracks, its cavalry and infantry lines, and its neat and commodious bungalows, everything is intensely military, differing very little in essentials from any other British cantonment in India. The Cantonment Bazar is quite a miniature native town in itself, but the real Indian town is Bangalore City, which includes the Fort on the south and extends to the Maharaja's Palace on the north. Distribution of light and power for the city of Bangalore is derived from the Cauvery Power Works, and the current is supplied from one main transformer station and two smaller substations located near their respective centres of distribution. The two additional substations are necessary owing to the extensive area to be lighted. The low rates charged for lighting afford Bangalore cheaper electric illumination than will be found in the majority of English, Continental, and American cities, and the residents have taken advantage of this to have their houses well lighted. The standard line construction makes use of composite poles consisting of a heavy seven-inch

wrought-iron socket thirteen inches long with a seven by seven-inch Australian jarrah-wood top which is seventeen feet in length, and is let into the iron socket a distance of twenty-one inches, thus making a pole twenty-eight and one-quarter feet long. The poles are six feet in the ground and are spaced about 130 feet apart.

His Highness the Maharaja resides at Mysore, where dwell also the other members of the Royal Family; Bangalore is the administrative head-quarters where are situated the public offices and archives of the State. The Maharaja and the Members of Government spend a goodly portion of their time at Bangalore. According to the Census of 1901 the total population of Bangalore City and Civil and Military Station was 159,046, of which 69,447 were in the City, and 89,599 in the assigned tract. The returns gave 68,111 as the population of Mysore City.

THE MYSORE MEDICAL AND SANITARY DEPARTMENT.

DURING the period of His Highness the late Krishnaraja Wadiyar's government, from 1799 to 1831, there was a Durbar surgeon attached to the Court, who superintended His Highness' Hospital at Mysore. After the assumption of the government by the British, a Dispensary was established in 1833, in a room in the Commissioner's Office in the Fort of Bangalore, and in 1834 one in the Cantonment. In 1839 a joint Hospital and Dispensary was commenced in the Pete (Bangalore City) on a small scale, but it proved so popular and useful that a suitable building with accommodation for 50 patients was erected in 1847. In 1849, the Fort Dispensary was also provided with a proper building. In 1850, a Hospital was opened at Shimoga. In 1852, a Hospital for 70 patients was established in the Bangalore Cantonment Bazaar, and the Pete Hospital was enlarged. A further addition to the latter was made in 1856 and in that year the Yelwal Dispensary, established in connection with the Residency, was transferred to Hassan. In 1866, the Pete Hospital was further enlarged, but meanwhile the Bowring Civil

Hospital was under erection in the Cantonment, on the plan of the La Ribosiére in Paris, which admitted of the segregation of the several castes of people and of different classes of disease. It was occupied in 1868, and in 1872 the Pete Hospital was converted into a Dispensary, in-patients being transferred to the Bowring Hospital.

By 1875 there were in existence in the Mysore State the following Medical Institutions:—

General Hospitals with Dispensaries attached—

Bowring Civil Hospital, Bangalore;

Raja's Hospital, Mysore;

Civil Hospital, Hassan.

Special Hospitals—

Lunatic Asylum, Leper Hospital, both at Bangalore.

Dispensaries with wards for in-patients—

Kolar, Hassan, Chitaldrug and Chickmagalur for out-patients only,—Bangalore, Petta, Chickballapur, Tumkur and Hariharpur. One at Shathhally, belonging to the Roman Catholic Mission, was aided by a Government grant.

The Surgeon to the Mysore Commission was stationed at Bangalore and was in charge of the Bowring Civil Hospital, and the two Asylums as well as in general control of Vaccination. Another Medical Officer was Superintendent of the Central Jail and had the supervision of the Petta Dispensary in Bangalore. There was a Civil Surgeon at the Head-Quarters of Ashtagram and Nagar Divisions, who was also Superintendent of the Local Jail and Inspector of all Medical Institutions within the limits of the Division. The Deputy Surgeon-General, Indian Medical Department for Mysore and Ceded Districts, personally inspected the Institutions at Head-Quarters at Bangalore. He was also Sanitary Commissioner and Registrar of Vital Statistics.

In 1881, after the rendition, the Bowring Civil Hospital being situated within the limits of the Civil and Military Station, became severed from the Mysore Government.

In course of time it was felt that a suitable Hospital, with accommodation for in-and out-patients was urgently needed in the city, the result being that in August 1887 the Petta Dispensary was amalgamated with Saint Martha's Hospital which was constructed by the community of the Good Shepherd and to which the State gave land and a large sum of money for its erection and maintenance. This amalgamation continued to April 1893 when, owing to the increasing demands for medical aid, a separate Government Hospital was opened which was located as a temporary measure in the old District Lock-up. In the meantime owing to the unceasing importunity of the then Senior Surgeon, Lieutenant-Colonel McGann, I.M.S., a suitable site for a new hospital, which should be worthy of the chief city of the State and situated in a spot within easy reach of the populous parts of the city, was, after careful consideration selected. On this site the foundation stone of the new Victoria Hospital was laid by Her Highness the Maharani (late Regent), C.I., in person, on the 22nd June 1897, this being the occasion of the Diamond Jubilee of Her Most Gracious Majesty the late Queen Victoria. The building is a handsome and imposing architectural structure and may deservedly be ranked amongst the finest hospitals in India, with the advantage, seldom obtainable in a city, of being situated in picturesque park-like surroundings. On the 8th of December 1900 the Victoria Hospital was opened by His Excellency Lord Curzon, the institution being placed in charge of Major John Smyth. The result is, in the words of Colonel T. J. McGann, "the present Victoria Jubilee Hospital, which, thanks to the great ability and devotion of the present Senior Surgeon, Lieutenant-Colonel J. Smyth, has acquired fame throughout India."

MEDICAL RELIEF DURING THE
REIGN OF H. H. CHAMA RAJENDRA
WADIYAR, G.C.S.I., FROM
1881 TO 1894.

In 1881 there were only 24 Hospitals and Dispensaries; but

during the reign of His Highness the late Chama Rajendra Wadiyar, from 1881 to 1894, the number rose from 19 to 114, and this shows that His Highness the Maharaja's sympathetic Government was keenly alive to the necessity of bringing medical aid as near as possible to the homes of the people all over the country, and of placing medical and surgical aid within easy reach of the sick and injured in the remote and unhealthy parts of the country. His Highness, fully appreciating the importance of Lady Dufferin's philanthropic movement, directed the training and employment of midwives all over the country and the opening of Special Dispensaries for Women and Children. All but 3 taluqs out of 66 were provided with midwives, and 5 Dispensaries for Women and Children were opened in District Quarter Towns. The great advances thus made for the relief of the sick in the State during the late Maharaja's reign, and under the sympathetic direction of the great Dewan, Sir K. Sheshadri Iyer, are brought into startling prominence by Colonel McGann in a statement he made on the eve of his retirement from the Mysore Service. The statement is as follows:—

"To begin with, when I came to Mysore as Civil Surgeon in 1876, except the Jail Hospital, which does not count as far as the public are concerned, there was only the General Hospital. There was no Lying-in or Special Hospital for Women and Children, there was not a qualified midwife of any kind, except one, who placed a high fee on her services and who was unwilling very often to take practice under any circumstances, and, consequently, she was of little use to the people generally and none at all to the poor. Early in 1877 I was transferred to Bangalore to take charge of the Central Jail with charge of the Pete Dispensary, etc., and I found a lamentable state of affairs in the Pete as far as medical aid for the poor was concerned." When Colonel McGann became Senior Surgeon in 1885, Sir K. Sheshadri Iyer gave him a free hand in the administra-

tion of the Medical Department and so the Medical Institutions in the State rose from 37 in 1885 to 120 in 1896 when he reverted to British Service.

SANITATION.

Special attention to sanitation was an important feature of His Highness the late Maharaja's reign. In addition to ordinary sanitary works carried out by the various District Fund Boards and Municipalities, His Highness devoted the large sum of Rs. 27 lakhs from State revenues on the improved sanitation of the capital cities of Mysore and Bangalore and of the larger mofussil towns throughout the State. Among the more important works which have been completed, or are approaching completion, may be mentioned (1) the water-supply and partial drainage of Mysore; (2) the filling in of the insanitary ditch round that city; (3) the extension of the Mysore and Bangalore Cities; (4) the scheme of water-supply to the latter; (5) water-supply, drainage and extension schemes for the Mofussil towns, besides numerous drinking-water wells throughout the State.

In 1890 there were only 11 midwives. They worked in the Maternities of Bangalore and Mysore, going out to cases as required. In 1891, Colonel T. J. McGann, the then Senior Surgeon and Sanitary Commissioner, issued a circular to all the Deputy Commissioners to entertain midwives in taluqs and to grant scholarships to women to undergo training in the Madras Lying-in Hospital. This was sanctioned by Government in March 1891.

In April 1892 the order to train midwives in the Maternity Hospitals in Bangalore and Mysore was passed on the Senior Surgeon's recommendation.

In August 1902 the training, and maintaining during training, of midwives in Mysore passed entirely under the control of the Victoria Memorial and Lady Dufferin's Committee, the Senior Surgeon to the Mysore Government being its *ex-officio* local Honorary Secretary. The Government of

Mysore about this time gave a handsome donation to these funds.

The following statement shows the rapid increase in the number of midwives in decennial periods from 1881 till the present time.

Date.	Number.
In 1881	Nil.
„ 1890	11
„ 1900	87
„ 1908	110

The following details regarding the existing Medical Institution in Mysore may be of interest :-

Special Hospitals.

(1.) *The Leper Asylum* was opened in the Pete in 1845. The building, however, was small and badly situated and a larger one was therefore built in a more suitable spot in 1857. This, however, was also ultimately found to be in an undesirable place, and so, in 1907, it was removed to the Magadi Camp of Epidemic Hospitals.

(2.) *The Lunatic Asylum* was opened near the Pete Hospital in 1850, the inmates being removed from a smaller place of custody which had been in existence for two years in the Cantonment. A few years later the old Pete Jail was added to the accommodation. A proposal is now before the Durbar to remove the Asylum to a healthier and less-cramped locality somewhere in the suburbs.

(3.) *The Maternity Hospital in Bangalore and H. H. the Maharanee's Female Hospital at Mysore* were opened in 1880. The former owes its existence to the munificent liberality of Rai Bahadur Yella Mallappa Chetty and was transferred to the management of the Bangalore City Municipality in 1883. Miss Govindarajulu was the 1st Lady Doctor appointed as Assistant Surgeon, and in 1887 placed in charge of the Maternity Hospital at Bangalore. It is now under the contemplation of the Durbar to remove it to a more central spot in the Fort.

(4.) *The Epidemic Diseases Hospital, Bangalore*, was opened on 1st July 1891. It is located at a safe distance from the Railway Station at the Western end of the city

and is available for the accommodation and treatment of cases of infectious or communicable diseases occurring among the residents of the city or amongst pilgrims and others arriving by trains from the shrines of Tirupati, Srirangam, etc. Special accommodation is provided close by for quarantining such persons when necessary, with a view to prevent, as far as possible, the introduction of infectious diseases into the City or State. When plague broke out in 1896, this Institution was enlarged and suitable camps were provided for cholera, small-pox and plague cases as well as for contacts in other contagious affections.

(5.) *The Government Eye Infirmary.* When Government accorded its sanction to the opening of this Institution, the present Oculist, Dr. S. V. Ramasamy Iyengar, M.D., who was placed in charge, selected the 9th of November 1896, being the birthday of the then Prince of Wales, as an auspicious day for the opening of it. It is at present situated on the Lal Bagh Road, but new premises will be soon built for it in the vicinity of the Victoria Hospital on the most approved plans.

The following table gives the numbers and classification of Medical Institutions as they existed at various periods :-

HOSPITALS & DISPENSARY.

1st Class.		2nd Class.		3rd Class.	
Date.	No.	No.		No.	
1881	3	5		16	
1894	3	7		90	
Year.	Details.			No. Total	
<i>State Public</i>					
	Special Hospitals ...			6	
	1st Class Hospitals ...			3	
	2nd Class Hospitals...			6 15	
<hr/>					
1906	<i>State Non-public</i>			8	
	Local Fund ...	116			
	Private aided ...	3			
	Private non-aided ...	1			
	Railway Dispensary...	4		132	
<hr/>					
GRAND TOTAL				147	

VACCINATION AND THE VACCINE INSTITUTE.

Private inoculators are stated to have been formerly pretty numerous in Mysore, but by 1855 they had been completely deprived of their occupation by the preference given to the Government Vaccinators. The latter were 54 in number and were transferred from taluk to taluk as necessary. There were 3 grades on Rs. 8, 10 and 12 a month, respectively. Each Vaccinator was expected to vaccinate 10 persons for each rupee of his pay, or suffer a proportionate fine. A small money reward was given at the end of the year to the most active Vaccinator of each Division. Under this system the number of operations increased with suspicious rapidity. It became notorious that, with the connivance of the village officials, the verification lists sent in by the Vaccinators were frequently fictitious. The project was then formed in 1865-6 of making them work in a more systematic manner through their ranges, proceeding from village to village in regular succession; and as by this method of proceeding some difficulty might be found in making up the required complement, the stipulation as to the number of operations to be performed monthly was withdrawn. In 1872-3 a system of inspection by the Apothecaries attached to the Camps of Deputy Commissioners was introduced as a check, which appears to have worked well. There were 84 Taluk Vaccinators in 1880-1 and 4 in the Bangalore Municipality. The Medical Subordinates in Hospitals and Dispensaries also vaccinated. To ensure better supervision over the working of the Department and the greater correctness in the returns submitted to the Senior Surgeon, 4 Deputy Inspectors of Vaccination were appointed on the 26th March 1886 as a tentative measure for the Districts of Bangalore, Tumkur, Mysore and Shimoga. The Vaccinator was required to leave with the headman or Patel of each village, a list showing the number of children vaccinated by him in the village and the date of

his visit to that place. This enabled the Deputy Inspector of Vaccination to test, with the help of the Patel, the correctness of the Vaccinator's returns.

Animal vaccination was for the first time introduced into the State in 1884 by the importation of a vaccinated calf from Madras into Bangalore, and again in 1885 the lymph was distributed all over the Province. It was, however, found difficult to replenish the stock of vaccinated calves, owing to the antipathy of the natives to lending calves for the purpose even on payment. The Vaccine Institute was started on the 14th March 1892 in a side building in the District

Lunatic Asylum premises. In it, vaccine and King's lanoline vaccine paste are now scientifically prepared, stored and distributed to the Vaccinators and Deputy Inspectors of Vaccination.

CHEMICAL AND BACTERIOLOGICAL LABORATORY.

Prior to 1897 the Civil Surgeon of Mysore was the Chemical Examiner to the Government of Mysore. In July 1897, Dr. M. Strinivasa Rao, M.A., M.D., B.Sc., was appointed as Chemical Examiner and Bacteriologist to the Government of Mysore. Early in 1899 the Bacteriological laboratory

was opened and it is now one of the finest and most completely equipped Laboratory of the kind in India.

THE PUBLIC HEALTH DEPARTMENT.

In August 1903 Lieutenant-Colonel John Smyth, Officiating Senior Surgeon and Sanitary Commissioner, laid before Government a scheme prepared by Colonel P. H. Benson, for a Health Department on the lines set forth by Colonel W. G. King at the India Medical Congress; but it did not come into operation till 1907 after the present Dewan Mr. V. P. Madhava Rao, himself a keen sanitarian, assumed control of the Government.



Mr. T. ANANDA ROW, B.A., Dewan and ex-officio President of Council, Mysore State. Born at Trivandrum, Travancore, May 15, 1852. Mr. Ananda Row is the son of the late Raja Sir T. Madava Row, K.C.S.I., formerly Dewan of Travancore, and who also filled the



The late Raja Sir T. MADAVA ROW.

important positions of Dewan of Indore State and Dewan of Baroda State. Mr. Ananda Row received his education partly at Pacheappa's School at the Presidency College at Madras, but chiefly at Maharaja's College, Trivandrum, whence he graduated in 1871. After leaving College, he was for about a year employed in the office of the Madras Board of Revenue, learning official work, and qualifying himself for the post of Deputy Collector. He was then engaged at Indore as Tutor to the Princes, sons of the late Maharaja Tukoji Row Holkar, but the climate not proving congenial, he availed himself of an opportunity which presented itself to him and entered the Mysore State Service in November 1873, at first as an Attaché, Mysore Commission. In 1874, he was appointed Assistant Commissioner, in which capacity he served at Bangalore, Kadur, Mysore, Hunsur and Hassan, and was invested with the powers of a Magistrate of the First Class in 1877. At Mysore, he was in charge

of Palace Establishments for 4 years during the late Maharaja's minority, and also after his installation in March 1881. In 1886, he was promoted to Deputy Commissioner and District Magistrate, and in 1889 was made Chief Secretary to the Dewan of Mysore. His next step was to the position of Director of Agriculture and other Statistics in Mysore in 1897, in which capacity he also served as Census Superintendent in connection with the Census of 1901. In 1904, he was appointed Revenue Commissioner, and in March 1906 First Member of H. H. the Maharajah's Council, and finally in March 1909, he was appointed Dewan of Mysore and ex-officio President of Council. Mr. Ananda Row is a B.A. of the Madras University.

T. ABDUL KARIM, Deputy Conservator of Forests. Son of the late Mahomed Khasim Sahib, Daroga. Born at Tumkur, 10th November 1853, and educated at Bangalore Central College, and School of Engineering and Natural Science in the same city. He joined the Mysore service in the year 1878



Mr. T. ABDUL KARIM.

as Apprentice Assistant Conservator of Forests and rose to Assistant Conservator in April 1882. In 1887 he was appointed Assistant Superintendent, 2nd class, in charge

of Mysore Revenue Survey. In 1894 he rose to be Deputy Conservator of Forests, 3rd class, reaching the 1st class in 1899. Mr. Abdul Karim has passed the F.A. Examination of the Madras University. He has a diploma from the local school of Engineering and Natural Science, Bangalore, as Assistant Conservator, and has passed the Revenue Survey Departmental Examination, and the Local Service Revenue and Criminal Examinations. He is President of the Managing Committee of the Government Hindustani Girls' School in the city of Bangalore, and Association of the Mahomedan Orphanage of the Anjuman-Islamia Association, and of the Anjuman School in the Civil and Military station of Bangalore. He is also President of the local Branch of the Mahomedan Educational Association of Southern India, and a Member of the parent Association of the same at Madras, as well as of various other Madras and Bangalore Mahomedan Associations.

Mr. P. S. ACHYUTA RAO, I.M.S., Superintendent and Medical Officer, Bangalore Jail, Government of Mysore. Born at Bangalore in the year 1857 and educated at the London Mission High School and Central College, Mysore. In the year 1884 he took his degree of L.M.S. at the Grant Medical College, Bombay, and in April of the same year was appointed Assistant Surgeon and Lecturer at the local Medical School, Bangalore. By the end of the same year he was transferred as Assistant Surgeon to Mysore, from thence he was placed in charge of Hassan District. He remained in this charge till 1889 when he obtained the appointment of Chief Assistant to the Senior Surgeon and Sanitary Commissioner, Mysore. In 1891 he was promoted to Civil Surgeon and posted to the Shimoga District. Six years later he was transferred to the Mysore District and placed in charge of the General Hospital and Mysore Jail. He did duty as Civil Surgeon and Chief Plague Officer for five or six years, and in July 1906 received his present appointment. While in Mysore District he was the Superintendent of H. H. The Maharani Hospital, he was also a member

of the Municipal Local Fund and the Improvement Trust Boards. He is a Freemason and member of Craft Lodge in Mysore of which he was W. M. for two years,



Mr. P. S. ACHYUTA RAO.

Companion Chapter Eureka Lodge, of which he was P. Z. for one year, Member of the District Grand Lodge as well as District Grand Chapter. Mr. Achyuta Rao is a linguist, reading and writing no fewer than seven languages. He acted on two occasions of six weeks each as the Senior Surgeon and Sanitary Commissioner and ex-officio Inspector-General of Prisons.

Dr. T. V. ARUMUGAM MUDALIAR, M.B., C.M., Medical Officer in charge, Victoria Hospital, Bangalore. Born April 10, 1861, at Hosur, Salem District; educated at Central College, Bangalore, and Madras Medical College. He took his degrees at the latter College in 1887 and joined the service in September of the same year as an Assistant Surgeon. He was placed in charge of the duties of the Civil Surgeon, Mysore, and Superintendent of Mysore Jail and Her Highness the Maharani's Hospital, for a short period in 1891. From December 1891 he regularly officiated as Civil Surgeon at Mysore, and in 1893-94 officiated as Superintendent, Mysore Jail, and in charge of Her

Highness the Maharani's Female Hospital, and Chemical Examiner. In June 1897 he was promoted to Civil Surgeon, substantive rank, and posted to Shimoga, taking charge of the jail at that centre. Dr. Arumugam Mudaliar was inspecting medical officer at Harihar in June 1898, and in August of the same year placed on plague duty in Bangalore, and then deputed to Mysore to organise plague measures. In October of the same year he reverted to the duties of Civil Surgeon at Shimoga, again taking a spell of plague duty at the end of that year and beginning of 1899. He was appointed Resident Medical Officer of the Victoria Hospital on the 6th of February 1901; he held that appointment until the 11th of September 1905, when, on the appoint-



Dr. T. V. ARUMUGAM MUDALIAR.

ment of Lt.-Col. J. Smyth, M.D., I.M.S., the then officer in charge of the Victoria Hospital, as Senior Surgeon and Sanitary Commissioner with the Government of Mysore, he was made Medical Officer in charge of the Victoria Hospital, which post he still holds.

Mr. HARMASJI JEhangir BHABHA, M.A., Fellow of the Universities of Bombay and Madras. Born in 1852, he took his degree in January 1869 from Elphinstone College, Bombay, where he had won

the first Senior Scholarship the year before. In 1870 he was Latin Reader of Deccan College, Poona, and in January 1871, he took the M.A. Degree in English and Latin, and



Mr. H. J. BHABHA, M.A.

was appointed Senior Fellow and Lecturer in English and Latin in Elphinstone College, Bombay. In 1872, with only ten months before him, he went to England and competed in the following year unsuccessfully for the Indian Civil Service. After his return from England he was appointed to act as Assistant Professor of Latin in Elphinstone College, Bombay, and in November 1876 was appointed Vice-Principal and Professor of Mental and Moral Science in the Central College, Bangalore. In December 1876 he was appointed Fellow of the Bombay University. In 1884 he was appointed Principal of Maharaja's College, Mysore. Under his Principalship the College won a high position among colleges of Southern India at the University examinations. In April 1890 he was appointed Education Secretary to the Government of His Highness the Maharaja of Mysore. His official designation was altered to Inspector-General of Education in Mysore in 1895. As head of the Education Department he has worked hard for the last eighteen

years to improve the efficiency of every branch of the department. He brought the Mysore Department in a few years into line with the most advanced areas of British India. A summary of the progress of the department is given in the chapter on Mysore. In 1893 he was appointed Fellow of the Madras University. He is a member of the Board of Studies in Teaching, and in 1905 he was chosen as a member of the University Commission for the inspection of colleges. During his furlough in Europe in 1906-07 he was deputed to study the systems of elementary and higher elementary education with special reference to Kindergarten instruction and manual training. Since his return from leave he has organised Kindergarten instruction chiefly in Girls' schools, and Sloyd training in connection with nine High Schools in Mysore, with the help of the late Miss Lucy R. Latter, Assistant Superintendent of Method, London School Board, and Mr. Gustaf Larsson, Principal, Sloyd Training School, Boston, Mass., U. S. A.

K. S. CHANDRASEKHARA AIYAR, B.A., B.L., Secretary to



Mr. K. S. CHANDRASEKHARA AIYAR.

the Government of Mysore, General and Revenue Departments. Born. August 2, 1869, educated at St. Joseph's College, Trichinopoly, Pre-

sidency College, Madras, and the Law College, Madras. He obtained his B.A. degree in 1889, gaining a first class in both languages and mathematics. He headed the list in the examination for the B.L. degree in the year 1892. In July of the same year he passed first on the list in the competitive examination for the Mysore Civil Service, and was appointed Probationary Assistant Commissioner at Bangalore. In August of the same year he was attached to the Chief Court of Mysore, and in September transferred to the Legislative Secretary's Office. In 1894 he was placed in temporary charge of the Munsiff's Court, Hassan, and in 1895 placed again on general duty at the same centre. He was promoted to Assistant Commissioner, 2nd class, and appointed to act as Assistant Secretary to the Government of Mysore, General and Revenue Departments in 1898, shortly after being promoted to the 1st class with the same appointment. In February 1904 he was again promoted to Deputy Secretary to Government in the same Department, which post he held till June 4, 1906, when he received his present appointment as Secretary to Government in the General and Revenue Department. He acted as District and Sessions Judge on two occasions in 1904 and 1905, and acted as a Judge of the Chief Court of Mysore for nearly ten months from June 1907.

Mr. JNAN SARAN CHAKRAVARTI, M.A., F.R.A.S., titled Kavyananda (literally the delight of the Sanskrit Muse) was born at Chandernagore on the 12th June, 1875. The name of his father, the late Rai Biresvar Chakravarti Bahadur, is well known as that of the eminent educationist of Chota Nagpur. From his early school days Jnan Saran displayed signs of great and versatile intellectual capacity, and his education was, therefore, carefully supervised by his father and his eldest brother Mr. Siddheswar Chakravarti, M.A., B.L., himself a distinguished scholar. Jnan Saran's school days were divided between the Ranchi Zila and the Hughli Collegiate schools, and the whole of his brilliant college career was spent in the Presidency College, Calcutta. He enjoyed the highest grade of

Government scholarships through-out his College course, and obtained numerous medals, prizes, certificates, etc., amongst which were the Gowaliar Gold Medal, the McCann Silver



Mr. J. S. CHAKRAVARTI.

Medal, the University M. A. Silver Medal, the Tagore Gold Medal, and the Mouat Gold Medal. Within twelve months of his obtaining the M.A. degree he carried off the Premchand Roychand studentship of Rs. 7,000, the highest prize in the gift of the Calcutta, or any other Indian University, and was soon after awarded the Elliott Gold Medal for Scientific Research by the Asiatic Society of Bengal.

In July 1896, Mr. Chakravarti joined the professorial staff of Canning College, Lucknow. In April 1897, he was transferred to the Hughli College where he relieved the learned Dr. W. Booth of his charge of the B.A. and M.A. classes in Mathematics. In May 1898, Mr. Chakravarti joined the Indian Financial Department as a member of the Enrolled list, in which capacity he held charge of important branches of the Accounts offices of Rangoon, Allahabad and Calcutta. In 1908 he was sent, as Comptroller and Financial Secretary to the Government of Mysore, from Calcutta to Bangalore, where he is also the Secretary to the Mysore State Life Insurance Committee, the Government Director of the Bangalore

Woollen, Cotton and Silk Mills Co., Ltd., and the Managing Director of the Mysore Spinning and Manufacturing Co., Ltd.

Amongst Mr. Chakravarti's scientific and literary productions may be mentioned the series of papers "On the General Cartesian Equation of the Second Degree" published in *Indian Engineering*. His paper on "The wastage of gold in the manufacture of jewelry in Bengal" drew much attention, and now forms a chapter in the standard work on Hindu Chemistry by Professor P. C. Roy, D.Sc., Ph.D. His paper on "The Theory of Thunderstorms" was the Elliott Research prize essay. His essay on the Bhagavad-Gita prefixed to his father's metrical English translation of the work (London: Kegan Paul Trench Trübner & Co., 1906) has been pronounced to be a work of sterling merit by distinguished critics. Mr. Chakravarti's Sanskrit and Bengali articles and poems are too numerous to mention. The title of Kavyananda was conferred on him after a competitive test in Sanskrit verse composition held by the conductors of the Sanskrit Chandrika in 1897.

Lieutenant-Colonel J. DESARAJ URS, Chief Commandant, Mysore State Troops. Born in Mysore on 12th November 1862. Educated at the Mysore Royal School under Colonel Malleon who was his guardian as well as guardian to H. H. the Maharaja of Mysore. He received military training with the 12th Lancers. In 1884 he was appointed Attaché to the Military Department, doing duty at Mysore, but in the following year resigned the service and joined the 3rd Madras Light Cavalry as Jemadar on probation. In 1886 he proceeded to Burma on active service, and in the following year was confirmed in his rank as Jemadar rising to Subadar at the end of the same year when his services were lent by the British Government to the Mysore State, by whom he was appointed Assistant to the Military Secretary and Aide-de-Camp to His Highness the Maharaja. In 1890 he resigned the British Service. After four years he was placed in command of the Imperial Service Regiment, Mysore Lancers, and obtained his step to Lieutenant-

Colonel, Mysore Army, later in the same year. In the following year he was made Aide-de-Camp to Her Highness the Maharani Regent, and in 1896 appointed to officiate as Military Secretary and Commandant of the Mysore Troops. He was confirmed in this post in 1897 and



Lt.-Col. J. DESARAJ URS.

appointed to his present post of Chief Commandant, Mysore State Troops, immediately after. Colonel Desaraj Urs is widely known as one of the keenest sportsmen in south India. He takes great interest in horse racing, and has a fine stable of racing ponies and horses, and has carried off many cups and trophies all over India. He is also a distinguished polo player, one of the best, if not the best, in India, and member of the famous Mysore Polo Team who have won many tournaments and have numerous cups and trophies to their credit. He is a sportsman in every sense of the word. Colonel Desaraj Urs is connected with H. H. the Maharaja of Mysore by marriage, being his brother-in-law.

Mr. DALVAI DEVARAJ URS, Inspector-General of Police, Mysore. Born on March 28, 1857, and adopted by Dalvai Nanjaraj Urs. He belongs to the Kalale family, famous in the annals of the Mysore Ursu (Kshatriya) community. His ancestors were the Dalvais (Comman-

ders-in-Chief) of the Mysorean Army. They played a very important and prominent part in the extension and consolidation of the Mysore Territory during the seventeenth and eighteenth centuries. A scion of the house, Nanjaraj was in command of the Mysore Troops that came to the aid of Mahomed Ali during the siege of Trichinopoly by Chanda Saheb in 1752. The famous Hyder Ali commenced his soldier's career under the patronage of Dalvai Nanjaraj. The Honourable East India Company, after the storm of Seringapatam by the British and the downfall of Tippoo Sultan, conferred on Dalvai Veeraraj, another member of the family, a stipend of 3,500 pagodas per annum, and this allowance is still enjoyed as a palace stipend under favour of H. H. the Maharaja of Mysore. The bridge over the Kapani at Nanjangud, known as the Dalvai Bridge, was built by Dalvai Devaraj Urs, one of the ancestors of the subject of this sketch. This Dalvai Devaraj was the brother of Dalvai Nanjaraj, mentioned above, and was the minister of the Maharaja. Over this bridge runs



Mr. D. DEVARAJ URS.

the Mysore-Nanjangud railway line. Mr. Dalvai Devaraj Urs was appointed to the Mysore Commission as Attaché on February 11, 1878. He was made Assistant Commissioner of the 4th class in November 1884.

He served in various capacities in the Revenue and Police Departments during the succeeding years till in July 1898 he was appointed Deputy Commissioner. After ten years he received the appointment of Inspector-General of Police, Mysore, in March 1908.

Dr. S. V. RAMASWAMY IYENGAR, M.D., L.R.C.P. & S. (Edin.), L.F.P. & S. (Glasgow), Personal Assistant to Senior Surgeon and Government Oculist, Bangalore. Born in Mysore, 15th October 1863. Educated at Central College, Bangalore, and Maharaja's College, Mysore, and Medical College, Madras, whence



Dr. S. V. R. IYENGAR.

he passed out in 1888 as a graduate in medicine. He gained his Edinburgh and Glasgow degrees in 1890. On 26th October 1892, he joined the service and was appointed Assistant Surgeon at Bangalore. In 1893, he was appointed Science Teacher in H. H. Maharani's Girls' School, where he remained a year, reverting to Bangalore as Assistant Surgeon and Chief Assistant to the Senior Surgeon in charge of Government City Hospital in August 1894. From October 1894 to January 1895, he was in charge of the Leper and Lunatic Asylums, and Maternity and Medical Stores as well. In May 1896, he was transferred to Chikmagalur as officiating Civil Sur-

geon. In August 1896, he returned to Bangalore and was placed in charge of the Central Jail, and in the following year did duty as Assistant Surgeon in the Eye Infirmary. In the same year he was appointed Oculist and was placed in charge of the duties of Civil Surgeon and Medical Officer, Central Jail, in addition to his own duties. He travelled all over India in 1901, collecting statistics on eye-sight in school children. For this service he was awarded the M. D. degree. He wrote various theses on eye-sight. In the year 1906, he was appointed Personal Assistant to the Senior Surgeon and Government Oculist, Bangalore. His studies of the eye were carried on under Drs. Argyle Robertson (Edin.); Juler, Frost and Morton, at London; Fuchs (Vienna), Herschberg of Berlin and Pargenschner, Wiesbaden. Dr. Iyengar has a good Masonic record. He was initiated at Lodge Bangalore in December 1896. In 1900, he was the first Indian who was made the W. M. of this Lodge. He is P. M., Lodge Bangalore; P. M., Lodge Hiram, No. 82 of Mark M. Masons, P. P. Z., of Eureka Chapter, 1043, and P. N. of Antiquity Royal Ark Mariners, and P. District Junior Grand Deacon of Madras, and P. District Standard Bearer, P. District first Assistant Sojourner.

Mr. MYSORE NARASARAJ KANTARAJ URS, Deputy Commissioner, Mysore State Government. Born September 20, 1870, at Mysore. He is descended from the Kalale family, well known in the annals of Mysore. According to tradition the family is of Kathiawari origin and descended from the members of a Yadava tribe who emigrated from Dwaraka in Kathiawar in the middle of the 14th century A.D., and settled themselves at Kalale, a village in the State of Mysore, some six miles south of Nanjangud, which is a famous place of pilgrimage in south India, and at present the Southern terminus of the Mysore State Railway. The chieftains of this race were important people from early times, ruling over fifty villages, with Kalale as their capital. Kantha Wadiyar, the first Chief,

1373 A.D., was succeeded by Mallarajah Wadiyar *alias* Krishna Wadiyar, 1385 A.D. Then in regular succession appeared Kantha Wadiyar and three others, 1416 A.D.; Hiri Mallaraja Wadiyar, 1510 A.D.; Thimmaraja Wadiyar, 1542 A.D.; Karikal Mallaraja Wadiyar, 1644 A.D.; Thimmaraja Wadiyar, 1660, Narase Urs, Maddur Chikka Kanthe Urs, Maddur Krishne Urs, Kanthe Urs, who married Katti Gopalaraja Urs's daughter Chendaya Ammanni, sister of Maha Mathusri Lakshammanni, who signed the treaty of Seringapatam in 1799, Narase Urs, who married Bettadakote Gopalaraja Urs's daughter



Mr. M. N. KANTARAJ URS.

Kempa Lakshmi Ammanni, sister of Maha Mathusri Ramavilas Sannidhana, Kanthe Urs, Narase Urs, the last named being the father of the present Kantharaj Urs by Kempa Nanja Ammanni, second daughter of Kapadi Veera Raja Urs, Swami of Malvalli Matt. As with their kinsmen the Wadiyars of Mysore, these Chiefs were the vassals of the Vijayanagar Kings. The Ummathur and Yelandur Chiefs were their contemporaries, with the former of which they were at inveterate enmity, while the latter were their friends and kinsmen. The great Raja Wadiyar of Mysore having acquired Seringa-

patam in the year 1610 A.D., invited Karikal Mallaraja, a member of this ruling family and a nephew of his own, to come to Seringapatam and accept the responsible duties of "Dalavahi" or Commander-in-Chief of the troops, in 1616 A.D. The family are Kshatriyas by caste and Vaishnavite Hindus in religion. Narasaraj Kantharaj Urs had the misfortune to lose his father when he was an infant in his second year, but was carefully brought up by his mother who personally directed his early home education in vernacular and Sanskrit. This lady is of remarkable ability and great credit is due to her for the able manner in which she brought up her fatherless children, the eldest of whom was the lady who was subsequently destined to become Her Highness the Maharani Vani-Vilas Sanidhana, C.I., of Mysore, the consort of His Highness the late Sri Chamarajendra Wadiyar Bahadur, G.C.S.I., and mother of the present Maharaja of Mysore His

Highness Sri Krishnaraja Wadiyar Bahadur, G.C.S.I. The youngest child, Kantha Ammanni, also made an excellent match, being married to Nanjaraja Urs, eldest son of Bala Urs of the well-known family of Mugur, who held the title of "Sarvadhikari" or Head of Finance and Revenue, a title as old as "Dalavahi." Kantha Ammanni died in 1901 leaving two sons and three daughters, her elder son Balaraja Urs born in January 1890, now representing the elder branch of the family. The son Narasaraj Kantharaj Urs, who was the second child, was sent for his English education to the Royal School, Mysore,

an Institution established for the benefit of the members of the aristocratic families of Mysore in the early seventies of the last century. This school being abolished in 1882, he joined the Maharaja's College, whence he matriculated and passed the F. A. Examination of the Madras University in 1890. The young man hearing of the fame as an educationalist of Dr. William Miller, LL.D., C.I.E., then proceeded to Madras to prosecute his studies for the B.A. Examination under that gentleman at the Madras Christian College. He passed this examination with distinction, taking a first-class in English and a very

Assistant Commissioner, Bangalore. He was again transferred to Mysore in 1900, and in 1901 appointed Special Sub-Divisional Officer of Chamara-janagar. In the following year he again returned to Mysore with the appointment of officiating Deputy Commissioner, and after two years, on July 1st, 1904, was made substantive in the grade of Deputy Commissioner. In 1906 he was confirmed as Deputy Commissioner, third class, and in July 1907 promoted to the second class, in which grade he continues to serve in Mysore up to the present time. In 1899 he was invested with the powers of a second-class Magistrate and in 1900 with the

powers of a first-class Magistrate. He has since been invested with the powers of Sub-Divisional and District Magistrate. He has passed the Revenue, Criminal and Civil Examinations, Parts I and II of the Mysore Local Service Examinations. Mr. Narasaraj Kantharaj Urs is a member of the Mysore Legislative Council. He is also President of the Mysore Municipal



"JAYA LAKSHMI VILLAS," MYSORE, RESIDENCE OF MR. KANTARAJ URS.

high place in the optional subjects of History and Political Economy, in the year 1892-93. He took his degree in the following year being the first member of his community to attain this distinction. His Highness the late Sri Chamarajendra Wadiyar Bahadur, G.C.S.I., nominated him a Probationary Assistant Commissioner (Schedule B.) to the Mysore State Service in November 1894; and in the following year he was appointed to the responsible post of Assistant Private Secretary to Her Highness the Maharani, C.I., Regent of Mysore. He held this position until 1899 in which year he was appointed Special

Council, and was appointed Chairman of the Mysore City Improvement Trust Board in March 1908. He is the Chief Sirdar of the Mysore State and has precedence of all Durbarees on all State occasions, except the Dewan for the time being. It is his privilege to present "attar and pan" to Their Highnesses the Maharaja and Yuvaraja on behalf of the Durbarees in all Durbars. He attended the Delhi Durbar in January 1903, and received the Silver Medal awarded to all notables in memory of that occasion. In February 1897 he married the first Maharaj Kumari Srimati Jaya Lakshmi Ammanni, the eldest sister

of His Highness the Maharaja of Mysore and has issue one daughter born November 7, 1908. His residence is in the Fort, Mysore. Outside of his official duties Mr. Narasaraaj Kantharaj Urs is the President of the Ursu Gymkhana Club of which His Highness the Maharaja is Patron and His Highness the Yuvaraja Vice-Patron. He is also Vice-President of the Mysore Cosmopolitan Club. The name "Urs," borne by the subject of this sketch, is a title appended to the name of every member of the community to which the Royal Family of Mysore belongs. The term is a Kanarese word meaning "King or Ruler" and is also used in this sense in the other Dravidian languages. It corresponds to the word "Singh" or "Sinh" appended to Rajput names and "Row" to Mahratta names. The word "Raja" is also prefixed to this word occasionally. Thus Narasa Raja Urs or Narase Urs, Kantharaja Urs or Kanthe Urs. Mr. Narasaraaj Kantharaja Urs is the owner of the splendid mansion known as "Jaya Lakshmi Villas." This fine edifice is situated on a high ridge at a distance of about two miles to the west of the city of Mysore and commands a fine and uninterrupted view of the country all round. Between the grounds of the mansion and the town there is a fine sheet of water in the form of a lake known as Kukkerhalli Kere. The estate covers an area of over 800 acres. As is the prevalent feature of the scenery in the State of Mysore, the grounds are undulating ridges and valleys, alternating and greatly enhancing the charm of the view. Judicious planting of trees has been in practice for some years which will in time found an extensive park, giving the grounds the appearance of an English country seat. The mansion itself is made up of three different buildings, but so connected as to give the whole the appearance of a single massive structure. The main building has a large number of spacious rooms on the ground floor, and four suites of rooms on the first floor, and is situated at the north end of the block. To the south of this extend two extensive

sets of dining apartments, one of which is reserved for the Zenana. These apartments extend south-east and south-west and again turn off south-west and south-east, thus enclosing at their extremities a third building occupied by the maid-servants who are in immediate attendance on the Maharaj-Kumari and the other ladies of the Zenana. The finest views of the mansion are obtained at the eastern and western sides which, graced with ornamental pediments, extend a length of nearly 400 feet. On the pediment at the northern elevation is placed a beautiful moulding of Gajalakshmi, the Hindu goddess of wealth and happiness. The outer façades of the mansion are embellished with Ionic and Corinthian columns with corresponding entablatures and Doric arches connecting the main block with the wings. The interior decorations, especially in the dining rooms, are of purely Hindu style. The general plan of the building exhibits an open quadrangle in the centre, thus allowing plenty of light and air to reach the inner apartments which, placed behind spacious verandahs, enclose the quadrangle on all sides. The main building is on a similar plan, but the front of the quadrangle is covered over, providing a fine reception hall nearly 40 feet high, and the back portion, known as the Bhuvaneswari, is similarly covered and surmounted by a dome with a gilt finial on top. In the Bhuvaneshwari there are some fine carvings to be seen. The doors, windows, almirahs and pillars supporting the dome are all richly carved and fine specimens of the ancient Indian art of carving which nowadays is becoming more and more displaced by bricks and mortar. The mansion is chiefly built of brick and mortar, timber and iron, stone having been dispensed with on account of the great delay which it would have involved. There are several smaller buildings which serve as out-houses to the main part of the mansion. At the north-east is the Agrahar or quarters for Brahmins, and the Karohatti or cow-stall. Lying on rising ground at the north are the stables, and at

the north-west the quarter for high caste Hindu servants and others. In addition to these the old Kebbekatte Bungalow, also known as the Chittaranjana Mahal, constructed in the time of the late Maharaja H. H. Krishnaraja Wadiyar III, forms a part of the property. This has been fitted with additions and improvements and serves as the guest house of the mansion. Fine roads in the grounds connect the several buildings, and the grounds include the old Hinkal Race-Course which with its past associations gives additional interest to the demesne. The total cost of the property was seven lakhs of rupees.

Sir P. N. KRISHNA MURTI, K.C.I.E., late Prime Minister of Mysore, is an hereditary nobleman of this important State, being a direct descendant in the male line of the famous Purnaiya. After the fall of Tipu, Purnaiya was selected by the Duke of Wellington (then Sir Arthur Wellesley) to rule Mysore during the minority of Maharaja Krishnaraja Wadiyar, the grandfather of the present Chief, who was invested with ruling power in August 1902. Sir Krishna Murti enjoys the estate given by the British to his ancestor for various good services in the Mahratta and other wars of the early years of the nineteenth century. He thus combines in his person interesting traditions which recall the past glories of British military prowess. The consolidation of Mysore after the confusion created by the downfall of the Mahomedan Government was the handwork of his ancestor, and on this account the family to which Sir Krishna Murti belongs enjoys special regard both in the eyes of the present royal family of Mysore as well as the public.

Sir Krishna Murti was born in 1849, and on finishing his University studies he was given an appointment in 1870 in the higher ranks of the State service. Mr. Lewin Bowring, who was then Chief Commissioner, seems to have been impressed with the young man's capabilities, for in his "Eastern Experiences" he makes mention of him as fit to be the Dewan of Mysore when it was restored to native rule; an



Sir P. N. KRISHNA MURTI, K.C.I.E.

event, which, as some of our readers may remember, took place in 1881 when the father of the present Maharaja was installed on the throne, after a period of fifty years during which the country was under British administration. At the time of the rendition, however, Sir Krishna Murti's youth stood in the way of his elevation, and he had to wait to become the first minister of the State till Mr. Rangacharlu and Sir Sheshadri Iyer made way for him twenty years later. In March 1901 when Sir Sheshadri Iyer (that "remarkable statesman" as Lord Curzon designated him) resigned the appointment on account of ill-health, Sir Krishna Murti was immediately chosen as his successor, and by this time he had filled all the higher appointments of the State, gathered much experience and ripened his wisdom.

Mysore, in common with other Native States, had suffered much from party strifes and intrigues, and the new Dewan openly set himself against these. In one of the earliest speeches delivered by him after his elevation to this office, he declared that he looked upon all those employed in the State service as brethren employed for the furtherance of Mysore, and that he would make no distinction whether the employees were natives of the State itself or belonged to other parts. To this rule of conduct he scrupulously adhered during his term of office with very wholesome results to the administration.

In January 1903 he accompanied the Maharaja to Delhi and was present at the Imperial assemblage. It was here that the title of K. C. I. E. was conferred on him, and he attended the grand ceremonial held by Lord Curzon in the Moghul Palace at Delhi when the insignia of the title was presented to him. Sir Krishna Murti's period of office was marked with many measures of progressive administration. Among the many wise and statesmanlike measures carried through during his term of office may be mentioned the institution of the Gold Fields Water-Supply, the introduction of the Local Boards System, the passing of the Municipal Regulation, the reorganization of the Judicial Department and the Educational Inspec-

torate, the encouragement afforded to co-operative enterprise in the passing of a Regulation and the appointment of a Special Officer, the Mysore City Improvement Scheme, the revival of the Minor Tanks Improvement System, the encouragement of industrial schools and of technical education, and the introduction of a number of valuable financial reforms. The liberal attitude of Sir Krishna Murti even in times of financial stringency towards industrial enterprise, particularly with reference to the expansion of the Cauvery Power Works, was particularly noticed at the time.

In social life Sir Krishna Murti commands much influence, and this influence he owes not so much to the high office he held as to his noble lineage and his own high personal qualifications as the first subject to the Maharaja. In parting, His Highness, while acknowledging in an autograph letter the success of Sir Krishna Murti's administration in a large number of matters of the utmost concern to the present and future welfare of the State, not only expressed the hope that the counsels of his most distinguished subject would be available to him even in his retirement, but also expressed his full recognition of the services rendered by Sir Krishna Murti to three rulers of Mysore in the person of himself, his revered father, and his mother H. H. The Maharani (late regent) and of the consideration due to him as the head of a family most honorably connected with the history of the State during the last hundred years.

Mr. Justice P. S. KRISHNA RAO, Rai Bahadur, B.A., B.L., Judge, Chief Court, Bangalore, was born in Cuddalore (Fort St. David), in the year 1856. After a preliminary course of education in the local Zilla School, he joined the Kumbakonum College in 1869 when Mr. Porter, the veteran educationist of Southern India, was the principal. After a distinguished career in that College of five years, during which period he was the recipient of a Government scholarship, he graduated in 1875. He practised as a pleader in the mofussil courts for some years and then joined the Law College at Madras, with a view to get himself enrolled as a vakil of the High

Court. In the Law class he carried off all the prizes, besides winning the Morehead scholarship; and when leaving the Law College, he was awarded a first class certificate of Proficiency in Law. He took his B. L. degree in 1883 and was enrolled as a vakil in 1884. He practised for two years in Madras and was then appointed Registrar of the Resident's Court in Bangalore. In 1890 he served the Mysore Government first as Assistant Commissioner, and then as Sub-Judge. In 1891 he reverted to the British service as District Judge, Civil and Military Station of Bangalore, which appointment he held with credit for



Mr. Justice P. S. KRISHNA RAO.

15 years. In recognition of the long and meritorious services rendered by him as District Judge, the title of 'Rai Bahadur' was conferred upon him as a personal distinction, and he was further awarded a certificate of merit on the Delhi Durbar day (1st January 1903). In 1906 the Government of India lent his services to the Mysore Government by whom he was appointed to be a Puisne Judge of the Chief Court at Bangalore, an appointment which he still holds.

Mr. Krishna Rao comes of a respectable family. His ancestors served the British Government with loyalty and distinction during the last century. His great grand-

father held the position of Pundit Sudr Amin (Sub-Judge) from 1820 to 1832, and his grandfather, who succeeded his own father as Pundit Sudr Amin on the latter's death, filled the responsible office of Senior Pundit in the Madras Sudr Adalat Court (High Court) up to 1847. Mr. Krishna Rao's father, after rendering more than thirty years' service, retired as Judicial Sheristadar in 1883, and is now enjoying his retirement in Cuddalore. Mr. Krishna Rao has four sons, one of whom is employed in the Mysore Service.

L. KRISHNA RAO, Assistant Commissioner and Superintendent of Police, Bangalore. Born at Shimoga, December 15th, 1862, and educated at Shimoga College. He joined the Mysore Government service in 1879 with the appointment of Munshi, and rose through the various grades till, in 1890, he was appointed Head-quarters Inspector, Kadur District, obtaining two years later the appointment of City Inspector of Police.

In 1894 he was transferred to Bangalore as Inspector in charge,



Mr. L. KRISHNA RAO.

City Police, Bangalore, officiating as Assistant Superintendent of Police, and in 1896 he was promoted to the substantive rank of Assistant Superintendent of Police, *sub pro tem.*, which was confirmed in 1898.

In that year he was placed on plague duty at Bangalore. In 1901 he attained the grade of Superintendent of Police and received the appreciation of Government in the detection and prosecution of the Goribidna-Naddagiri dacoities, also a similar mark of approval for the good work he did in connection with Police arrangements on the occasion of the visit of H. E. the Viceroy to Mysore, and for praiseworthy efforts in the detection and prosecution of cattle-lifting gangs of Korchars. In 1904 he was appointed Assistant Commissioner at Tumkur, and Government in this year recorded with satisfaction the appreciation expressed by Mr. F. Fawcett, Deputy Inspector-General of Police in Madras on special duty, of the work done by him while on special duty. In 1905 he attained his present grade of Assistant Commissioner and Superintendent of Police, both 1st class, and was given his present appointment.

Mr. E. S. KRISHNASWAMI IYER, B.A., M.B. & C.M., Civil Surgeon, District Medical and Sanitary Officer and Superintendent of Jails, Mysore. Born at Erode, Madras Presidency, in the year 1863, and educated at Native High School, Madura, and Kumbakonam College, and subsequently at the Madras Medical College. He joined the Mysore Service on June 4, 1888, with the appointment of Sub-Assistant Surgeon, doing duty at St. Martha's Hospital, Bangalore. In the following year he was promoted to Assistant Surgeon and stationed at Hassan, doing duty at the Civil Hospital, Kadur. In 1890, he was placed in medical charge of the Kadur District, and from June of the same year acted as ex-officio Vice-President, Hassan Town Municipality. In 1893-94, he was placed in charge of the Civil Surgeon's duties at Shimoga, and in the latter year returned to Bangalore in medical charge of the head-quarters establishment. In October of the same year he was promoted to the 2nd class and went on duty with the Dewan of Mysore on a northern India tour. On the conclusion of this tour he returned to his former appointment at Bangalore. In 1898,

he was appointed Health Officer, Bangalore, and in 1899, Special Plague Officer, Kolar Gold Fields, returning at the latter end of that year to Bangalore to work in the Bacteriological Laboratory. He



Dr. E. S. KRISHNASWAMI IYER.

was promoted to Civil Surgeon, 3rd class, in 1900, and acted as Chief Plague Officer and Health Officer, Bangalore, in that year. From 1901 to 1906, he was Civil Surgeon at the Kolar Gold Fields, returning to Bangalore as District Medical and Sanitary Officer in the latter year. In June 1907, he received his present appointment of Civil Surgeon and District Medical and Sanitary Officer, Mysore. In the performance of his duties as Medical Officer he has travelled through Ceylon, Burma, and a great part of northern India with Sir Seshadri Iyer, late Dewan of the Mysore State. Mr. Krishnaswami Iyer is invested with the powers of a 2nd class Magistrate. . .

Mr. M. G. KRISHNASAMI RAO, B.A., Vice-President, City Municipal Council, Mysore, son of Musahib Gungadhara Rao, Palace Service, Mysore Government. Mr. Krishnasami Rao's family have been identified with the Mysore Service since the latter half of the 18th century, and one of his ancestors, Buche Rao, held an appointment second to that of the Dewan during the reign of Sri Krishna Rajendra

Wadiyar III. At the time of the restoration, he was entrusted with the charge of the Political and Financial Departments by General



Mr. M. G. KRISHNASAMI RAO.

Harris. Both Buchanan and Wilks make mention of Buche Rao's faithful service to the State.

Mr. Krishnasami Rao was born at Mysore city on August 11, 1870. He received his education at the Maharaja's College, Mysore, and graduated from the Madras Christian College with the degree of Bachelor of Arts in 1890. Subsequently he studied at the Presidency Law College, Madras, and joined the Mysore Civil Service in 1896 as a Revenue Probationer. Two years later, he was appointed Deputy Amildar, and officiated as Amildar, 4th class, at Yedatore. He did duty in this capacity at various centres till advanced to the substantive grade of Amildar in 1901. Five years later, he was appointed Assistant Commissioner and Vice-President, Bangalore City Municipality. He was ex-officio Secretary to the New Extension Committee. In 1908 he was transferred to Mysore as Vice-President of the City Municipal Council and ex-officio member of the Board of Trustees for the Improvement of the city of Mysore.

Mr. B. J. KUMARASAMI NAIK, B.A., Deputy Commissioner. Born at Bangalore in the year 1863 and educated at the Central College in the same city. In 1885 he took his B. A. degree at the Madras University. In the same year he joined the service as a Revenue Probationer, in the following year receiving the appointment of Deputy Amildar. He served in this capacity at Malvalli and other centres till 1889, when he was promoted to Amildar. In 1891, he was appointed Probationary Assistant Commissioner and placed on special duty in connection with advancing loans for the construction of Irrigation wells in the Bangalore District. In 1893, he was promoted to Assistant Commissioner, 4th class, and in 1898, served for a time as Superintendent of Police, subsequent to which his services were transferred to the Revenue Department. In 1907, he was given the officiating appointment of Deputy Commissioner and District Magistrate at Chickmagalur.



Mr. B. J. KUMARASAMI NAIK.

In 1908, he received his present appointment as Deputy Commissioner of Bangalore and President of Bangalore City Municipal Council.

Mr. H. LINGARAJ URS, Durbar Bakshi, Palace of His Highness the Maharaja of Mysore. Born in the Mysore Province in the year 1855. Educated at the Royal School,

Mysore City, under Colonel Malleson and Sir James Gordon, guardians to H. H. the late Maharaja of Mysore. Mr. Lingaraj Urs has been in the



Mr. H. LINGARAJ URS.

Palace service for the whole of his active life. He was originally appointed in January 1880 to supervise all duties in connection with the Palace cattle and Gajasala Departments; and in addition to his duties in that capacity he was also appointed Officer-in-waiting to the Royal Family of Mysore. He was further appointed Durbar Bakshi in September 1895. His duties entailed his attendance at all festivities, ceremonies, etc., contingent on State entertainments, durbars and other ceremonial occasions. Mr. Lingaraj Urs has continued in all his appointments.

Rai Bahadur MANEPANDA MUTTANNAH, Conservator of Forests, Mysore State. Born October 2, 1855, in Coorg, of a well-known family. He is the son of a large landed proprietor. He received his education at Mercara Central School, and Central College, Bangalore, and joined the service as Probationer, Forest Department, Coorg, in 1878. He served in the Sub-Assistant Conservator's grade until 1889 when he was promoted to Assistant Conservator, and passed through the grade of Extra Deputy Conservator of Forests, till the

year 1901, when his services were placed at the disposal of the Mysore Government, by whom he was appointed Deputy Conservator of Forests; in December



Rai Bahadr. M. MUTTANNAH.

1901 he was promoted to Conservator of Forests and Secretary to the Government of Mysore in the Forest Department. In July 1904 he was appointed Conservator of Forests, Mysore, and stationed at Bangalore. Title of Rai Bahadur conferred in 1899.

Mr. M. NARAYAN RAO, Officiating Excise Commissioner and Ex-Officio Commissioner of Stamps, Mysore. Born at Mysore City, November 28, 1854. Educated at the Wesleyan Methodist School and Central College, Bangalore. Mr. Narayan Rao received his first appointment in Government service at the hands of Colonel Hill, late District Judge, Mysore Government Service. This was in the year 1871, and the appointment was that of Clerk in the Deputy Commissioner's office, from which by the year 1876 he had risen to Munshi in the Mysore Chief Commissioner's office. From 1876 to 1879 he acted as Head Clerk in the Famine Commissioner's office during the time of Sir George Elliott and was placed on special duty during that period. In the

year 1886 he was appointed Revenue Assistant Commissioner attached to the Dewan's office. In this capacity he served till 1891 when he was appointed to officiate as Under-Secretary to the Dewan of Mysore, and in 1894 was placed on special duty in charge of the Statistical Office. A year later he was appointed Deputy Commissioner, sub. *pro tem.*, an appointment which was shortly after made substantive. In this grade he attained the first class in 1905 and served till 1908, when he was appointed to his present office as Officiating Excise Commissioner. Mr. Narayana Rao was invested with the powers of a 1st Class and Sub-Divisional Magistrate in 1894 and District Magistrate in 1895.

Mr. H. NANJUNDA RAJ URS, Superintendent, Amrut Mahal Department. Service of H. H. the Maharaja of Mysore. Born in Mysore in the year 1858. Educated at the Royal School, Mysore, under Colonel Malleson, the guardian of the late Maharaja, where he remained for the completion of his education until he joined the



Mr. H. NANJUNDA RAJ URS.

service on August 1, 1880. His first appointment was as Attaché to the Military Department, Bangalore, where he remained five

years, being transferred in a similar capacity to Mysore in 1885. In the year 1888 he was appointed to officiate as Revenue Assistant Commissioner, an appointment that was made substantive in 1891. He remained in this post in charge of Muzrai, and general duty, till he was made Vice-President of the Mysore City Municipality in 1894. He was appointed special officer for the purpose of assessing houses to be demolished in Mysore City in 1900. In 1902, he was appointed Superintendent, Amrut Mahal Department, and at the end of the same year placed in charge of the Palace Controller's duties, which he held till February of the following year, when he reverted to his appointment as Superintendent, Amrut Mahal Department, which he has held ever since. He was invested with the powers of a 3rd class Magistrate in 1889, 2nd class later in the same year, and 1st class in 1903.

Mr. VARIYUR NUGGEHALI NARASIMMIYENGAR, Member, Legislative Council, Mysore State. Born in the year 1842. Son of Dewan N. Narasimmiyengar of Tumkur, who held high office under the British Government before the transfer of Mysore to the native Royal line of Princes. This gentleman by his sterling character earned the affections of the people, and is still remembered by the sobriquets of "Dewan" and "Yajaman." He lived to a green old age revered and loved by his countrymen, and respected alike by the British Government and his sovereign. His son Mr. V. N. Narasimmiyengar obtained his education at the Mission English School at Tumkur, subsequently attending the Government High School at Bangalore, which has been since converted into the present Central College. Even in his early years, he was marked by a keen desire to obtain knowledge, his particular interest being English literature. He left school at the age of eighteen, it being his father's wish that he should enter the service of his country. In March 1860 he obtained the appointment of Revenue Munshi in the Superintendent's Office of the Chitaldrug Division, as it then was. After less than a month, he was

made Translator in the Residency Department. He was speedily promoted to Revenue Sheristadar, and in 1864 acted as Public Prosecutor. He served with credit in this post, earning the encomiums of the



Mr. V. N. NARASIMMIYENGAR.

European heads of the Department, until 1867, when he was appointed to the Mysore Inam Commission as Assistant Commissioner. His operations extended over eighteen Taluks. In this post he again earned the repeated commendations of his superiors. In the year 1877 he was transferred to the Revenue Department as General Assistant Commissioner, 3rd grade, and subsequently placed on Famine Duty as Special Relief Officer. By his services in this post he earned the thanks of the Chief Commissioner. He also served as Special Test Census Officer after the great famine of 1877. In 1879, he was appointed Deputy Commissioner of the Shimoga District, subsequently being transferred to the Kolar District. He held this post until the year 1883 when he was appointed Session Judge, Mysore. He also officiated in this capacity in the Nundidroog Division, and in 1886 he resigned the service. He then remained unemployed for four years. In the year 1890, however, he was selected to conduct the Provincial Census. In the perform-

ance of this duty he worked with great zeal and assiduity and his report left nothing to be desired. He was warmly thanked for this work by both the Indian and the Mysore Governments. His report was a model of good writing, by which he infused life into the dry statistics which he had to handle. Sir Sheshadri Iyer declared that "his statistics decidedly spoke." The Government was pleased to pass an order in 1892, condoning the break of service on account of his resignation. The last office held by Mr. Narasimmiyengar under Government was that of Palace Controller, Mysore, from 1897 to 1904, when he finally retired. In this capacity he showed ability and much firmness, detecting malpractices, and putting a stop to corruption, waste and jobbery. Mr. Narasimmiyengar's official career scarcely gives an idea of the great influence for good which he exerted in Mysore during his long life. He was the chief of an earnest band of true patriots, who by their uprightness, ability, and sterling worth, paved the way for the gradual transference of their beloved land of Mysore from British administration to their own Royal line; and throughout this was effected by cordial sympathy and co-operation with the British administration and recognition of the goodwill of their rulers—a bright example to Indians in general. Veterans such as Mr. Narasimmiyengar were the connecting links between the old administration and the new, introducing the system and experience of the former into the latter with excellent results. He is a man of great erudition, both Eastern and Western, and is a profound English scholar. In Sanskrit he is one of the most learned men now alive. As is to be expected from a man of such attainments, Mr. Narasimmiyengar is imbued with the most liberal principles, both social and religious. Well versed both in Oriental and Occidental theology, he has long sought to loosen the trammels of Hindu conventions. He was the first among the Brahmin caste of which he is a member to promote countenance and popularise inter-sect dining. Also the first to perceive and repudiate the iniquity of

denying female education, and his daughters were the first in the Province to pursue culture even after they became wives and mothers. He was also the first to repudiate child marriages for girls and carried his precepts into practice by delaying the nuptials of his daughters long after the usual age. He was also the first in Mysore to promote and countenance sea-voyages for Hindus without losing their caste. Many of his relatives have taken journeys over seas and been received by their caste fellows on their return. He has been active in these and other social reforms during his long life, and has been helped to success by his immense erudition as well as by the respect and liking of his countrymen, among whom he has laboured to lighten their self-imposed bonds.

Mr. P. PALPU, L.M. & S., D.P.H., Deputy Sanitary Commissioner and Inspector of Vaccination, Bangalore. Born at Trivandrum, the capital of Travancore State, on November 2, 1863. Educated at Maharaja's College, Trivandrum, Medical College, Madras, and King's



Dr. P. PALPU.

College, London. He also pursued his studies in Paris, Berlin and other centres of learning on the Continent of Europe. He entered public service in 1890, under the Government of Madras, as Medical Super-

intendent of the Government Special Vaccine Depôt, Madras, and was soon promoted to be the Senior Superintendent. He was, next year, selected by the Mysore Durbar to start and work a Vaccine Institute for the State. He joined the Mysore service on the 20th September 1891 and started and worked the Vaccine Institute at Bangalore so efficiently that not only the Mysore State but also several Districts of the Madras Presidency and other parts of India and Burma got their supply of Vaccine therefrom. While holding the appointment of Superintendent of this Institute, he also worked in the Medical Department proper of the State, in the St. Martha's Hospital, Lunatic and Leper Asylums and in the Medical Stores. In August 1894, he was placed in sole sub-charge of these Institutions. He continued in these appointments till August 1898, when on the first outbreak of plague he was selected for the responsible post of Superintendent of Plague Camps in Bangalore City. On the subsidence of plague that year, he was deputed to England where he obtained the D. P. H. of Cambridge. In 1900, he returned to duty at Bangalore and served as Health Officer of the city, in which appointment he continued till the middle of 1905. In 1902 he was appointed ex-officio Vice-President of the City Municipality. In 1905, he was given the provincial appointment of Personal Assistant to the Sanitary Commissioner to the Government of Mysore. He performed the important duties of this post until August 1907 when he was promoted to his present office as Deputy Sanitary Commissioner and Inspector of Vaccination. In this capacity he is also a Member and Secretary, Central Sanitary Board.

Mr. Palpu is a Fellow of the Royal Institute of Public Health, and a Member of the British Medical Association, London. He has studied as special subjects—Bacteriology, Serum Therapy, and Tropical Medicine, in London, Sudbury, Paris, Lille, Berlin, and Rome.

Mr. K. P. PUTTANNA CHETTY, second Councillor to His Highness the Maharaja of Mysore. Born 28th April, 1854, and educated at the Central College, Bangalore. Entered Government Service in the

year 1875 and served till 1884 in various branches of the Public works and Railway Administrations. In that year he was appointed Traffic Superintendent, Mysore State Railway. In 1886, his services were lent to the Southern Mahratta Railway Company. He left railway service in 1886 and was appointed Assistant Commissioner on Police duty at Shimoga. In 1891, he was Superintendent of Police at Bangalore and in charge of the Railway Police in addition to his other duties. In 1896, he was appointed a Revenue Sub-Division Officer and a Magistrate of the 1st class, and in 1898, Deputy



Mr. K. P. PUTTANNA CHETTY.

Commissioner and District Magistrate, Kolar, being shortly afterwards transferred in the same capacity to Bangalore where he was also ex-officio President of the Municipal Commission. Here he had a great deal of work in connection with the first outbreak of plague in the Bangalore city and district. In fact, he was specially brought from Kolar to deal with the situation, at that time very critical. He managed affairs with great tact to the entire satisfaction of the Government and the people. In addition to this distinction Mr. K. P. Chetty was the first Indian gentleman to hold independent responsible office on any Indian Railway when, as above mentioned, he served as Traffic

Superintendent until the line was leased to the Southern Mahratta Railway. It was at that time that he first came prominently into public notice. Sir Sheshadri Iyer, K.C.S.I., appreciated the abilities shown by him so highly that he took him into the administrative department of the public service at the expiry of his railway service. It was in recognition of his uniform good work as a District Officer that in 1904 he was specially selected for the charge of the Kolar District with its gold mines and the vast interests of the European population. He was very successful in his administration of this important centre. Mr. Chetty takes a keen interest in all public matters connected with Bangalore, but his strong point as an administrator has always been his sympathy with the humbler classes, with whom and the general public he is very popular. He is known as the friend of the ryot. He is interested in promoting Kanarese literature. The introduction to the history of the present ruler of Mysore in "Rulers of India, Volume II" is from Mr. Chetty's pen. He was appointed to the Mysore Council in 1906, and is a representative Mysorean.

Mr. B. P. RAGHAVALU NAIDU, A.C.E., Executive Engineer, Palace Division, Mysore State. Born on September 10, 1852. Educated at the School of Engineering and Natural Science, Bangalore, where he received the diploma of A. C. E. In the year 1871, he entered the service of the Madras Government in the Medical Stores Department. He took three years' leave and resigned the service after passing his examination. In August 1878 he entered the service of the Mysore Government as Apprentice Engineer, Bangalore Division. From December 1892 he officiated as Executive Engineer, being confirmed in this grade in 1898. During his service he has been engaged on many special works of considerable magnitude, including the construction of very large tanks at Barankanave, Marikanave, etc. He was sent on deputation to Calcutta, Delhi, Agra, and other places in Northern India to study architectural designs for the

new palace, under construction in 1901, 1902 and 1903, remaining about a month each time. The special work in connection with the improvement of Mysore was also placed under his charge. He was concerned in the erection of nearly all the public buildings and Bazars in Mysore City. Extensions, parks, and large architectural buildings were also designed and carried out by him. He was put in charge of the building of the new palace at Mysore in 1897, to replace the former building which had been to a certain extent destroyed by fire. The demolishing of the remains of the old structure



Mr. B. P. RAGHAVALU NAIDU.

and the building of the splendid new edifice is his work. He was responsible for the building of the Marriage Pavilion in 1900, for which he was awarded a bonus of a month's pay by the Government, and the Maharaja was moreover so well pleased with the work that he presented Mr. Raghavalu Naidu with a gold watch in open Durbar. At the installation of the present Maharaja, Mr. R. Naidu was in charge of the construction works for the reception of Lord Curzon, and did his work so well that the Maharaja granted him a large increase in his personal allowance, and presented him with a handsome diamond ring. He designed and

built the show case for the exhibits at the Franco-British Exhibition of 1908, and for which he was presented with a Diploma of Honour. He was also awarded a silver medal by the Madras Fine Arts Society for the exhibits sent from the Palace Division, Mysore, and a gold medal by the Indian Congress Exhibition, held in Bombay in 1904, for the Palace Division exhibits. He retired from the Mysore service on the 26th January 1909.

Mr. Justice S. S. SETLUR, Judge, Chief Court, Bangalore. Born July 21, 1862. He is a member of the Sr. Vaishnava Brahmin Community of Mysore. The family came to Mysore and settled at Seringapatam in the 18th century. Mr. Setlur's father was Sethur Singiengar, who after a period of highly approved services under the British administration in various parts of the Madras Presidency entered the service of the Mysore Government as Marhamat Bakshi, or Engineer-in-Chief, and retired as Anche Bakshi or Postmaster-General in the year 1867. His extensive cosmopolitan charities which are still administered in Trupati, North Arcot, and in several parts of the Mysore State, have rendered his name a household word in Mysore. Mr. S. S. Setlur graduated in arts from the Presidency College, Madras, in January 1887, and after undergoing a course in the B. Sc. Examination under Doctor Cook of the Science College, Poona, took three years later his LL. B. degree at the Bombay University. He won Judge Spencer's prize as well as the Arnold Scholarship by being placed first in the Presidency and also first in Hindu Law. In the year 1892, after passing the necessary examination, he was enrolled an Advocate of the Bombay and Madras High Courts. For four years he held the post of Professor of Law in the Government Law School (University), lecturing on Hindu Law. He also held the appointments of Examiner for the High Court examinations, and Examiner in Kanarese for the Bombay University, of which he is a Fellow. He is also a member of the Royal Asiatic Society. Mr. Setlur has, among other avocations of a busy literary life, long been associated

with the journalistic profession, and was the Bombay correspondent of the Madras "Hindu." He also contributed to the Law Journal of the Bombay Presidency, dealing with important questions of Hindu Law. The "Indu Prakash," an Anglo-Mahratta Journal published at Bombay, had in him an excellent Editor of its English columns. One of his best papers was a learned reply to a disquisition on the origin and growth of the Bengal School of Hindu Law by Mr. Justice S. C. Mitter of the Calcutta High Court, published in the London Law Quarterly Review, edited by Sir Edward Pollock, the eminent jurist.



Mr. Justice S. S. SETLUR.

Mr. Setlur takes a keen interest in the advancement of Sanskrit knowledge and is himself a Sanskrit scholar of ability. A translation of the Mitakshara, the leading Sanskrit authority on Hindu Law, which, his scholarship in English and Sanskrit gives him a special qualification to translate, is in the Press, and is expected to render an important addition to the extant literature on the subject.

Mr. D. SITARAMA RAO, Chairman of the Board of Trustees for the improvement of the City of Mysore, and Superintending Engineer, Western Circle, Mysore. Born in Krishna District, in the

year 1856, received his early education at the Wesleyan Mission High School, Madras, and after a successful collegiate career at the Central College, Bangalore, entered the Civil Engineering College, Bangalore. He received his diploma from the Engineering School in the year 1880, being the first in the list of the successful candidates for the year. In the same year he was appointed to the service as an apprentice Engineer. He rose to Assistant Engineer in 1882, being placed on Railway and Railway Survey duty till the end of 1884. Even at this early period of his career his energetic services in connection with the construction of the Bangalore-Tumkur Railway received special recognition at the hands of His Highness the Maharaja of Mysore by a special promotion. He was appointed to officiate as Executive Engineer in 1885, being made substantive in this grade in 1888, and in this capacity he served till 1893 as Executive Engineer in charge of the construction of the Bangalore Hindupur Railway, of the Astagram Channels Division, of Bridges Division, and of French Rocks Division, etc. His more than average capacity for work, however, soon attracted the attention of the Government of His Highness, who selected him as the fit and proper person for the arduous duties of Controller of His Highness the Maharaja's Palace. This change from the P. W. D. to the Civil Department has given further opportunity for his abilities. His stay at the Royal Capital of Mysore has brought in its train various other duties in addition to his work as a Controller of His Highness's household and finances, all of which he discharged with distinction and ability. As a member and Secretary of the Committee for the management of the Mysore Industrial School, as a member of the Mysore City Extension and Building Committee, as a Joint-Secretary of His Highness the Maharane's Girls' School, as a member of the Committee for the management of Nanjaraja Bahadur's charities, as an officer in charge of the Mysore Artware Department, as a member of the Committee for the improvement of Seringapatam Town, as a member of the Committee to

perpetuate the memory of His late Highness the Maharaja, as Secretary to the Viceregal Reception Committee, and in filling various other positions, both public and private, he always strived at an uncommon success. While he was Palace Controller he received special presents and recognition from His Highness the Maharaja and Maharane Regent. In 1897 he reverted to the P. W. D., and was appointed to the French Rocks Division, and later on in the year placed in charge of the completion of the projects for Mandigere Channel and Sh.msha left bank Channel. In December 1897 he was



MR. D. SITARAMA RAO.

posted on special duty to the Superintending Engineer's Office, Eastern Circle, and rose to the 2nd class temporary in the same year. From 1898 to 1903 he was in charge of the Tumkur Division and was confirmed in the 2nd grade during 1903. Once again his special qualifications for higher administrative work were taken advantage of by the Government by appointing him as the Chairman of the Board of Trustees for the Improvement of the city of Mysore, in which capacity he conducted himself with his usual tact and energy and won the approbation and thanks of the Government for the improvements effected. In 1905,

while yet Chairman he was appointed to the first class and in the early part of 1908, was made Superintending Engineer, Western Circle.

Mr. Sitarama Rao was presented with Khillats by His Highness the Maharaja of Mysore in open Durbar, in recognition of the services rendered by him as Secretary in connection with the Reception of their Royal Highness the Prince and Princess of Wales at Mysore and Bangalore.

Raja MANTRA PRAVINA C. SREENIVASIENGAR, retired first Member of Council. Born at Bangalore in April 1850, educated chiefly at the London Mission High School at that station, under Revd. J. H. Walton, who was one of the foremost educationists of the day. His career as a student was brilliant. He entered the service of the Mysore Government while he was yet a boy prosecuting his studies; and for several years he filled to the satisfaction of his superiors certain ministerial appointments, first in the Postal Department, then in the Chief Commissioner's Office, and lastly in the Judicial Commissioner's Office. Having, in the meantime by private study, qualified himself for the bar, he resigned service in 1871 and enrolled himself as a pleader (now Advocate) of the highest court in the land, i.e., the Judicial Commissioner's Court. After a brief but successful career as a legal practitioner, the Government to whom his general attainments and judicial talent were prominently brought to notice by the then Judicial Commissioner, Sir James Gordon, offered him a Munshi's appointment in 1873, the station to which it was proposed to post him being the litigious mercantile town of Chintamani in the Kolar District. He accepted the offer and proceeded to Chintamani where he served for six years and made a name for himself, both as a judicial officer, and as an officer who, given the opportunity, had an aptitude for executive work. During that period his merits and work earned for him no less than three promotions. Not only was his judicial work highly appreciated by the Judicial Commissioner, but his services during the famine of 1876-78 earned for him the approbation of the Famine

Commissioner, Sir Charles Elliot, and the thanks of the Government of India. About the end of 1879, he was transferred to Chitaldrug where in addition to his duties as Munsiff he was for sometime in charge of the District Treasury and Jail, and the Subordinate Judge's Court. Early in 1883 he was transferred to Mysore, where he rendered approved service for fully ten years, first as Munsiff, then as Assistant Commissioner, then as Sub-Judge and lastly as District and Sessions Judge. In these several capacities he was as efficient as he was popular. In addition to the duties officially pertaining to him, he was a member of the City Improvement Committee, the President of an important endowed Sanskrit school, and the Secretary to the Board of Trustees of a large aided Anglo-vernacular school, in all of which capacities he gave complete satisfaction. In 1892 he was placed on special duty in connection with a Viceregal visit. The marked ability and legal acumen which he brought to bear upon his judicial duties, and the great tact and zeal which characterized his other self-imposed duties, gained for him the esteem of all concerned, both the Government and the Public, and it is no exaggeration to say that it was with profound regret that after a series of ovations and demonstrations the citizens of Mysore bade him farewell in the beginning of 1893 when, partly in the interests of his health, but chiefly to afford him greater scope for the employment of his talents, he was transferred from the Judicial to the General Department, and appointed Deputy Commissioner (Collector) and District Magistrate of the Chitaldrug District. The Government took that "opportunity of recording their regret that by Mr. Sreenivasiengar's transfer to the Revenue Department at his own request for the benefit of his health, the Judicial Department is losing the services of an officer of whose judicial work the Chief Court have expressed high appreciation and approval." After doing some special work first as Legislative Secretary to Government and then as an Additional Sessions Judge, he joined the Chitaldrug District

in March 1893, and he worked there for a little over two years interesting himself not only in Departments directly under him but also in others which as a District Officer he felt he ought not to neglect, such as Educational, Irrigation, Communications and Sanitation. He was indefatigable in his exertions to improve the administration of the district in every possible way, and during the short period he was in charge of the District he achieved a measure of success of which any District Officer might well be proud. In 1895 he was taken to head-quarters on promotion as



Raja M. P. C. SREENIVASIENGAR.

Revenue Secretary to Government. A year later he succeeded to the combined office of Secretary to Government, Revenue and General Departments. While serving in that capacity, he was anxious to get back to the Judicial Department in which he had spent nearly twenty years, and for which, therefore, he had a special love. An opportunity offered itself of reverting to that Department as a Judge of the Chief Court, but Her Highness the Maharani Regent held that he could not be spared from his important appointment of Secretary. For six years he held this last mentioned responsible post with such conspicuous ability and tact that he

attracted the favourable notice both of Her Highness the Maharani Regent, C.I.; Sir K. Sheshadri Iyer, K.C.S.I., and Sir Donald Robertson, K.C.S.I.; all of whom placed entire confidence in him and frequently sought his advice and assistance in dealing with momentous affairs of State. On the retirement of Sir Sheshadri Iyer in 1901, Mr. Sreenivasiengar was raised to the Council of Regency as Second Member. On the installation of His Highness Sree Krishna Raja Wadiyar Bahadur on the throne in 1903, the Council of Regency of course ceased to exist and was succeeded by a Consultative Council on which Mr. Sreenivasiengar was appointed Second Member. When Mr. V. P. Madhava Rao, C.I.E., left for Travancore as Dewan in 1904, Mr. Sreenivasiengar succeeded him as Senior Member of the Mysore Council. The high honour of "Rajamantra Pravina" was conferred on Mr. Sreenivasiengar by His Highness the Maharaja in October 1904 in recognition of his long and meritorious services to the State, and in succession to the Hon'ble Mr. Chentsal Rao, C.I.E., who was the only other recipient of that distinction. Mr. Sreenivasiengar has been marked out by nature as an administrator of the highest order. All who come in contact with him cannot fail to be impressed with his indomitable energy, his high sense of duty, and his genial and sympathetic disposition. He is extremely popular with all classes in the Mysore State.

His term of Councillorship having expired, Mr. Sreenivasiengar retired in 1906 after a long and faithful service of nearly forty years, and in the full possession of both bodily and mental vigour, of which he has since been making excellent use both as a non-official member of the newly constituted Legislative Council and as the President or Chairman of certain important public institutions.

Dr. MAJUR SRINIVASA RAU, M.A., M.D., C.M., B.Sc. (Edin.), Chemical Examiner and Bacteriologist to the Government of Mysore, and Lecturer in Biology and Physiology at Central College, Bangalore. Born at Bellary, India, in the year 1864, and educated at Wardlaw College, Bellary, Christian College,

Madras, and University of Edinburgh. He took his M. A. degree at Madras in 1886, obtained his B. Sc. (Edin.) degree in 1894, M. B. and C. M. (Edin.) in 1895, and M. D.



Dr. M. SRINIVASA RAU.

(Edin.) in 1899. He joined the Mysore Government service in 1876 as Assistant, having previously been Professor Surgeon of Physical Science at Doveton Protestant College, Madras, and Head Master, Kurnool High School. In 1897 he was deputed to undergo a course of training in Bacteriology at Agra and Bombay, and in 1897 was appointed Chemical Examiner and Bacteriologist to the Government of Mysore, which appointment he now holds. In 1899 at the request of the Government of India, he was deputed to work with the Indian Plague Commission. He is a member of the British Medical Association.

Mr. B. S. VENKATACHARIAR, Executive Engineer, Bangalore Division. Born in Mysore in the year 1853 and educated at the Central College, Bangalore, and Christian College, Madras. He studied Engineering at the School of Engineering and Natural Science, Bangalore, joining the service on August 30th, 1878, with the appointment of Apprentice Engineer, Shimoga. He was promoted to Assistant Engineer in 1880 and served in this capacity at Chitaldrug, Hassan,

Mysore and Shimoga, obtaining in 1887 the officiating appointment of Executive Engineer, in which he acted at Shimoga until 1893, when he was confirmed as Executive Engineer, 4th class. In 1897, he was transferred to Bangalore, being promoted to the 3rd class in the following year. He has remained in this appointment ever since, rising to the 2nd class in 1904 and 1st class in 1905. His Highness the Maharaja of Mysore honoured him by presenting him with Khillats in open Durbar, in recognition of the services rendered by him in connection with the reception of Their Royal Highness the Prince and Princes of Wales at Mysore and Bangalore. Mr. Venkatachariar is a member of the Masonic Fraternity and has risen to the high rank of the District Grand Superintendent of Works, Madras, and District Grand Inspector of Works in the District Grand Lodge of Mark Master



Mr. B. S. VENKATACHARIAR.

Masons, Madras. He is P. W. M. of Lodge Bangalore, 1043; P. W. M. Lodge Hiram, No. 83; P. P. Z. of Chapter Eureka, 1043; and P. N. of Lodge Antiquity, No. 83.

Mr. MUHAMMED ZAHIRUDDIN MACCI, B.A., F.L., Superintendent of Police, Mysore, was born at Bangalore, 10th December 1872. He belongs to the Sir Kazi family

in Mysore, the Kaziship of Bangalore and its suburbs, the Civil and Military Station and Kolar being to this day hereditary in the family under Sanads from



Mr. Md. ZAHIRUDDIN MACCI.

the Emperors Akbar and Shah Jehan, perpetuated and confirmed by successive Emperors of Delhi, Nawabs Hyder Ali and Tippu Sultan, the Honourable the East India Company, and His Highness the late Sree Krishnaraj Wadiyar Bahadur, G.C.S.I. The members of the family under similar Sanads also held posts of Kazis of Seringapatam, Hoskote, Chitaldrug Cantonment, etc., besides holding from time to time important secular positions, and the family has all along enjoyed the trust and the confidence of the rulers: Emperor Aurangzeb in his Firman, dated 2nd Rabi-ul-Awal, 30th year of the Samneat to Krishna Saheb "the Elite of the nobles, the most worthy of confidence and the most deserving of Royal favour." One of the Generals in the expedition against Bijapur directed him to seek "the advice, help and support of the most revered and reverend Kazi Mahomed Ibrahim in all matters regarding the management of the Cities and Forts," while latterly Kazi Gulam Mohiadin Sheriff, Mr. Macci's uncle, was "as a worthy descendant of a family who have held the office of

Kazi of Bangalore for many generations, and in recognition of good service for 28 years in the Mysore State, granted on 1st January 1877, a certificate in the name of Her most Gracious Majesty Victoria, Empress of India, by Mr. C. Saunders, the then Chief Commissioner.

The appellation Macchi signifies that the family originally came from Mecca (Arabia). Mr. Macchi was educated at the Central College, Bangalore, till he took his B. A. degree of the University of Madras in the year 1893. He prosecuted his studies for the B. L. and passed his F. L. examination, 1895, having continued at the same time his science studies in the Christian College, Madras.

He is one of the few who held the Mysore State Scholarships, which are awarded only to those who take the highest places in the first class among the candidates from the Mysore Province in the Madras University Matriculation Examination, and was the recipient while in the Law College of a scholarship of Rs. 200 from the Government of His Highness the Maharaja. He also held a scholarship of Rs. 45 per month from the Government of His Highness the Nizam during his studies in the Central College, as also in the Christian College, Madras.

Mr J. Cook, M.A., the veteran educationist of Southern India, wrote of Mr. Macchi as "the most distinguished Mahomedan student that I have ever had and perhaps the most distinguished that has passed through the Madras University."

In November 1897 on the recommendation of the late Sir K. Seshadri Iyer, K.C.S.I., Dewan of Mysore, Her Highness the Maharani Regent Sahiba, C. I., appointed him a Probationary Assistant Superintendent of Police, and he was soon after posted to Chittaldurg District on frontier plague-duty. But plague having broken out at Bangalore, he was drafted from Chittaldurg in October 1898 and deputed on special duty with reference to the Mahomedan community, who entertained serious objections, on religious grounds, to plague preventive measures. Belonging as he does to a religious and priestly family he achieved

great success in overcoming their objections and rendering segregation and inoculation popular among the community, so much so that his Urdu pamphlet on plague, in which he showed by quotations from the holy Koran and the sayings of the Prophet that segregation, disinfection, and inoculation were not against religion, was most favourably commented upon by the Press in Southern India; and the present Dewan Mr. V. P. Madhava Rao, C.I.E., who was then Plague Commissioner, ordered that the Urdu pamphlet and its English translation should be published at Government cost and distributed all over the State. Mr. Macchi was drafted in January 1899 on plague duty to Mysore, and the next month was appointed special officer for the purpose of assessing house to be demolished on account of plague in the Mysore City.

He then served as Assistant Superintendent of police in French-Rocks and Chittaldurg, and was promoted to the grade of Superintendent of police in 1904.

Mr. Macchi was placed on special duty at Mysore during the marriage of His Highness the Maharaja, and during the visit of His Excellency Lord Curzon, Viceroy of India, in connection with the Installation of His Highness Sri Krishnaraj Wodeyar Bahadur, C.C.S.I. He was drafted on special duty to Mysore again during the visit of their Royal Highnesses the Prince and Princess of Wales in 1906, and in the same year was appointed Assistant Commissioner, 1st class, and posted as Superintendent of police to Mysore.

Mr. Macchi takes interest in athletics, and was instrumental in organising the "Sree Krishna Raj police gymnasium" for the better cultivation of athletics in the police force, His Highness the Maharaja having been pleased to allow his illustrious name to be associated with this institution.

While in Chittaldurg Mr. Macchi was instrumental in starting a co-operative society among the Mahomedans of Mola-Kalumru, which has greatly tended not only to ameliorate the condition of the Mahomedan community, but also to cement in bonds of friendship and brotherly feeling the Hindus

and the Mahomedans of the place. The Government of His Highness the Maharaja have been pleased to note with approval this work of Mr. Macchi in bringing people together and starting this association, which 3 years after his transfer from the place, assumed the name of "Zahir-ul-Islam co-operative Society" after his name, in recognition of the valuable services he rendered to the community.

Mr. V. P. MADHAVA RAO, C.I.E.,
late Dewan of Mysore.

The late Dewan of the State of Mysore, Mr. V. P. Madhava Rao, C.I.E., was born in 1850 in the District of Tanjore, a district which has furnished such distinguished statesmen as the late Raja Sir T. Madhava Rao, Sir Seshavaya Sastri, Sir A. T. Muthuswami Aiyer, and a host of others who in their time achieved great success in the fields of service to which they belonged. Mr. Madhava Rao comes from an ancient and well-known family of Mahratta Brahmins, long settled in Tanjore, who are supposed to have emigrated from the Satara district to Southern India in the wake of the Mahratta conquest of Tanjore. He received his education in the Provincial School and College at Kumbakonam, and took the B. A. degree in 1869. He at the outset of his career turned his attention to journalism, and joined the staff of a newspaper at Trichinopoly, but soon severed his connection with the Press and entered the service of Mysore State, first in the office of the guardian of the young Maharaja (the late Ruler of the Province). This was in 1870, and from that year the connection of the present Dewan with the State of Mysore commenced; but the career that has attained to such distinction had but very small beginnings, for it commenced with a deputy clerkship on Rs. 50 per month.

Two years later, after a brief experience in the Judicial service, Mr. Madhava Rao was appointed Manager of the Palace, and a little later on was made Head Master of the Royal School, where H. H. the late Maharaja was educated. He was next appointed Public Prosecutor in the Ashtagram Division, and then filled in succession the posts



Mr. V. P. MADHAVA RAO, C.J.B.

of Munsiff of Kortagere and Head Sheristadar of the Judicial Commissioner's Office. From the Judicial branch he transferred into the Revenue line, and steadily worked his way up to a Deputy Commissioner-ship of the first class. He was employed on various special duties from time to time, in all of which he acquitted himself with remarkable success. In 1892, he was appointed by the late Maharaja as Inspector-General of Police, and during the short period of his office he brought about several much-needed improvements in that department. In 1898, he was appointed as Plague Commissioner, and in that capacity he did excellent work, and in recognition of his meritorious services in connexion with the plague operations, the Government of India conferred on him the distinction of a Companionship of the Indian Empire, and the Kaiser-i-Hind gold medal in the very first year the order was instituted. In 1898, he was appointed a Member of the Maharaja's Council, and in 1902 was sent to Bombay to study the system of revenue administration in that Presidency, with a view to improving the system obtaining in Mysore. On the installation of the present Maharaja he was made a Revenue Commissioner, besides being First Councillor, and he did much to raise the tone of the Revenue Service in Mysore. As Revenue Commissioner, he had scarcely completed the reforms which he introduced into the Revenue branch of the administration, when he was invited by the Maharaja of Travancore to take up the Dewanship of that State.

When in 1904 he assumed this office he proceeded at once to initiate radical reforms in the several departments of the State service, apparently not before they were needed, for a period of stagnation

had set in and the machinery of the administration required a vigorous shaking up to bring it into line with modern progressive administrations. Among the reforms successfully carried out may be mentioned the progress made in the departments of Finance and Revenue Settlement, and the institution of the Sri Mulam Popular Assembly, by which the then unique political privilege was granted to the people of sending their own elected representatives to take part in its deliberations. Mr. Madhava Rao was also instrumental in abolishing taxation in kind; and short as was the period of his connexion with the Travancore State, his liberal views and high ideals and his unfailing sympathy with the aspirations of the people, made him emphatically the People's Dewan.

In March 1906, with the approval of the Government of India, Mr. Madhava Rao was appointed Dewan of Mysore, *vice* Sir P. N. Krishna Murti, K.C.I.E., whose term of office had expired. The official confirmation of the appointment met with general approval, for in 1901, on the death of that eminent statesman, Sir K. Seshadri Iyer, who was the Dewan up to that time, and whose friend and right hand man Mr. Madhava Rao had been throughout the closing days of his career, it was expected that the Dewanship would then fall to the latter. But the prior claims of Sir P. N. Krishna Murti could not be passed over, and Mr. Madhava Rao continued as Councillor and Revenue Commissioner.

The most important measure with which Mr. Madhava Rao has been identified since he assumed the Dewanship of Mysore is the institution of a Legislative Council for the State. The elaboration of all legislative measures had hitherto formed a part of the duties of the

Council of the Maharaja, consisting of the Dewan and two Councillors, and it was felt that the character and composition of the Council, the smallness of its numbers and the want of publicity in its proceedings, did not permit of legislative measures being considered as fully and from as many points of view as was desirable. Therefore the new Legislative Council was formed by the association with the Maharaja's Council, which was already in existence, of a number of official and non-official gentlemen who bring their practical experience and knowledge of local conditions and requirements to bear on the discussion of legislative measures. The Council came into existence in June 1907, and has already done some valuable work.

Mr. Madhava Rao was also instrumental in getting an obnoxious tax which was weighing heavily on the Supari industry remitted. The tax was yielding a revenue of nearly four lakhs of rupees to the State.

Mr. Madhava Rao is a staunch advocate of female education, and although the higher education of women has made good progress in Mysore, there is no State in the Empire that stands more in need of sympathy as regards elementary teaching among its women in general. He is a friend to social reform, and he has the good of the people at heart, and his whole career, successful and thoroughly consistent as it has been, is sufficient indication that the interests of the State of Mysore are not likely to suffer at his hands, although he may not always be prepared to move as rapidly as some of his friends may wish. In the matter of the Legislative Council, for instance, although the elective principle has not yet been introduced as it has been urged it should have been, a promise has been given to the effect that it will not be long in coming.



THE
STATE OF HYDERABAD.



His Highness ASAF JAH, NIZAM-UL-MULK ; MIR SIR MAHBUB ALI KHAN, FATEH JUNG, G.C.B., G.C.S.I.,
NIZAM OF HYDERABAD.

HIS HIGHNESS ASAF JAH, NIZAM-UL-MULK; MIR SIR MAHBUB ALI KHAN, FATEH JUNG, G.C.B., G.C.S.I., Nizam of Hyderabad.

AMONG the Ruling Chiefs of India, the Nizam of Hyderabad holds first place. The founder of the ruling family was one of Aurungzeb's Viceroys; in 1724 he was virtually independent.

It was in 1713 that Kurn-ud-Din Asaf Jah, a distinguished soldier of the Emperor Aurungzeb, was appointed Nizam-ul-Mulk and Subahdar of the Deccan. A few years later he threw off the control of the Delhi Court. The first Asaf Jah was of Turkoman descent, and during his service under the Delhi Emperor was distinguished alike in war and in political sagacity. At the time he was appointed Subahdar of the Deccan the Moghul Empire was on the verge of decline, and amid the general confusion Asaf Jah had little difficulty in asserting his independence against the degenerate and weak occupants of the throne of Delhi. Since then, the history of the dynasty, of which the present Nizam is the representative, has been inextricably interwoven with the history of the Deccan, and of Hyderabad, the capital city of the State; and the family fortunes are fully dealt with in the historical section of the article on the Hyderabad State. It is only necessary, therefore, to say here that the present Ruler is the son of the late Nizam, Afzul-ud-Dowla, who died in the early seventies, when his son was only three years of age. The latter was formally installed on the *Guddi* by the British Resident, and a Regency was formed to carry on the affairs of the State until such time as the young Prince should be fitted to himself assume the control of the administration. During the minority of the Prince, the affairs of the State were virtually controlled by one of the most able and most astute of native administrators, the late Sir Salar Jung.

At the time of the death of the late Ruler, the Deccan was in a somewhat unsettled state. Several questions were pending between the late Nizam and the Government of India, which could not be brought to an issue, and we have it on the authority of a former Resident at Hyderabad, the late Sir Richard Temple, that if the late Nizam had any one idea in politics on which his thoughts fixed themselves it was this; that whatever thing had novelty must be evil, and that any so-called reform which the British Resident might suggest should be regarded with circumspection. He desired, if possible, to keep his people aloof from all European notions, social as well as political. For all that, he was thoroughly loyal to the British Government which he felt to be his sole

support. These matters will be found fully set forth in the history of the State, but so much is necessary here by way of explanation of the position held by the Minister, Sir Salar Jung, in the administration of the State. The business of the State was performed by the Minister, yet he was kept by the late Nizam in a state of thralldom. The reason given for the Ruler's strange conduct was that Sir Salar Jung was anxious to introduce good government into a distracted and well-nigh ruined State, in which policy he had the support of the British Government. This aroused the fierce jealousy of the Nizam, but when he died and the Regency was practically vested in Sir Salar Jung, the political conditions of the State immediately changed. Interference by the Supreme Government became of less frequency, and when the present Nizam, in February 1884, was invested by Lord Ripon, at that time Viceroy of India, with full administrative powers, the affairs of the State were in a comparatively prosperous condition.

The greatest care and attention had been bestowed upon the education and political training of the young Nizam. The Government of India, on the death of his father, had insisted that it was a matter of the greatest importance that the future Ruler should have every educational advantage that could be secured for him, to fit him for the high and important duties of his station. The superintendence of His Highness's education was at first entrusted to two brothers, Captain John Clerke and Captain Claude Clerke, C.I.E., with whom were associated tutors well versed in English, Arabic, Persian, and Hindustani. With the aid of these, the young Nizam acquired a thorough knowledge of Persian and Urdu literature, and was well grounded in English. In the meantime his physical training was not neglected, and he soon excelled in all manly games and became a good horseman and an efficient shot. His first appearance at a public ceremony was in 1877, at Delhi on Proclamation Day, when he attended the big Durbar by Royal invitation, accompanied by the Regent, Sir Salar Jung, and a large retinue of Hyderabad Nobles. A few years later his political and official instruction was undertaken by the Minister himself, assisted by the heads of the various departments of State, and His Highness acquired a practical working knowledge of the machinery of the administration over which he was in the near future to preside. In 1883 he paid his first visit to Calcutta, and

made the personal acquaintance of the Viceroy, Lord Ripon, and it was on the occasion of this visit that arrangements were made for his investiture with full administrative powers. His Minister, Sir Salar Jung, had in the meantime died, and a Council of Regency had been established with His Highness as President.

On the 2nd February 1884, the Viceroy reached Hyderabad for the purpose of performing the installation ceremony, and great were the preparations made in the Nizam's capital to celebrate the accession of His Highness to the throne. In the course of his speech in the Durbar Hall Lord Ripon said that he was the first Viceroy of India who had ever visited Hyderabad, and his presence on this occasion was a mark, not only of the close and intimate ties which united the Ruler of the State with the British Government, but also of Her Majesty the Queen's deep interest in the welfare of the Nizam.

One of the first acts of the Nizam after assuming sovereign rights was to issue a proclamation to his subjects officially announcing his accession to the throne, and indicating in detail the policy of administration he intended to pursue. During the rule of His Highness great advances have been made and many improvements in the administration of the State have been carried into effect. The material resources of the country have been developed, railway and road communications have been extended and much progress has been made in irrigation. All these measures form part of the administration of the State under the direction of His Highness, and are fully dealt with elsewhere. But there are matters of more personal moment that may fitly be mentioned in this article, and among these are the tangible tokens of loyalty and good-will towards the British Government that have, from time to time, been given by His Highness; the attendance of the Nizam in full State at Lord Curzon's Delhi Durbar; his reception of Their Royal Highnesses the Prince and Princess of Wales at Hyderabad; the great floods of 1908, and the part personally taken by the Nizam in the relief of the sufferers; and last, but perhaps most important of all, the final settlement of the long-standing difficulties connected with the administration of Berar. These are outstanding points in connexion with the régime of His Highness, and as they are of a more personal nature than are the measures of administrative policy introduced during the same period, they are accorded a place in this biographical notice of the Nizam.

To take the last mentioned matter first in order of importance, as affecting the general well-being of the State. The Province of Berar, with an area of nearly 18,000 square miles and a population of nearly three millions, had long been under the dominion of the Nizam until, in 1853, it was assigned to the British Government, with the object of providing from its revenues the charges for the so-called Hyderabad Contingent, a force of more than 7,000 men under the command of British officers, which was maintained permanently at the capital of the State. The

terms of the treaty under which Berar was assigned to the British became in time a constant cause of dissatisfaction and complaint on the part of the Nizam and his Government. The revenues of Berar under British administration largely increased. The Nizam was entitled under the treaty to whatever surplus revenues remained after all necessary charges had been met, but the amount of those charges was left to the discretion of the British Government, whose views regarding administrative requirements and the necessity for material improvements differed greatly from those of the Nizam and his Government. Frequent attempts were made to obtain the abrogation of the treaty and the restoration of the province, and it was not difficult to find, in England itself, noisy advocates of the claims of the Nizam. All controversies on this subject were settled in 1902, by the Viceroy and the Nizam, on terms which, while they protected the people of Berar, gave liberal recognition to the claims of the Nizam, to whom a fixed annual payment is made by the British Government—his nominal rights of sovereignty being maintained. But for all practical purposes, Berar has become a British province.

Not the least useful part of Lord Curzon's work in India was the friendship he formed with His Highness the Nizam, and the influence he exercised for the good of the State. Valuable reforms have been introduced in quite recent years and the supervision of the finances of the State, which had fallen into the utmost confusion, was entrusted by the Nizam to a British officer, with the best of results. When, at the beginning of 1903, Lord Curzon held his great Durbar at Delhi, the Nizam was amongst the most honoured guests, and the movements of His Highness attracted the greatest amount of attention. Although he personally adhered to marked simplicity of dress during the Durbar, the Nizam's temporary residence at Ludlow Castle was furnished in most magnificent style. The private apartments contained the most costly carpets, hangings, and shawls, many of them the work of the famous shawl merchant who supplied some of the Coronation robes for Her Majesty Queen Alexandra. There was also a magnificent display of gold-plate. The grounds of the castle were gaily decorated, yellow, the royal colour of Hyderabad, predominating, while the Nizam's carriage, and his escort, of regal splendour, were among the sights of Delhi during the Durbar period. To the west of the Castle a large plot of ground was set apart for the purpose of a camp to accommodate the Nizam's Body-guard, which consisted of 50 Cavalry and 200 Infantry, under the command of six officers. Two hundred magnificent horses were taken from Hyderabad and were stabled in the military camp. Eighteen State elephants were also taken from Hyderabad, and His Highness's personal suite consisted of twelve nobles and eight great officers of State, including H. E. Maharaja Kishen Pershad, Prime Minister, and H. E. Nawab Fakhr-ul Mulk, Judicial Minister. Nine

special trains were employed to accommodate the Nizam, his suite, followers, and impedimenta.

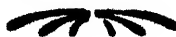
The occasion of the Coronation Durbar was celebrated with great rejoicings throughout the Hyderabad State. All communities, and especially the Mahomedans, were enjoined to offer up prayers for the welfare and prosperity of His Imperial Majesty, the King-Emperor, under whose benign rule, it was pointed out, they enjoyed so many worldly blessings.

Although Lord Ripon was the first Viceroy of India to visit Hyderabad, successive Viceroys have followed the example thus set, and the effect of these visits and of the change of attitude of the British Government towards the premier State is clearly evidenced in the good understanding that now exists between the Nizam and the Government of India. It was shortly after his installation that the Nizam gave the first tangible token of his loyalty and friendship, when in 1885, he offered the services of his troops in the Egyptian war; and later on, when an invasion of Afghanistan by Russia seemed imminent, he made a similar offer. Although these

proffers of service were declined owing to various reasons, they created an excellent impression, and when on the occasion of the Jubilee of the late Queen-Empress, the Nizam made an offer to the Viceroy (Lord Dufferin), of pecuniary help, to the extent of 60 lakhs of rupees, to be expended upon frontier defences, this impression was strengthened. It is interesting to remember that the present Nizam was not the first of the Rulers of the dynasty who has offered the British Government monetary aid; while the offer of troops, made in 1885, laid the foundation stone, as it were, of the Imperial Service Troops which came into existence four years later. These troops, which, though they are under regular inspection by British officers, belong absolutely to the different Native States from whose subjects they are recruited, have now reached a high standard of efficiency and have won commendation in China and Somaliland, as well as on the North-West Frontier. They are available for Imperial service when placed at the disposal of the British Government by their Rulers.



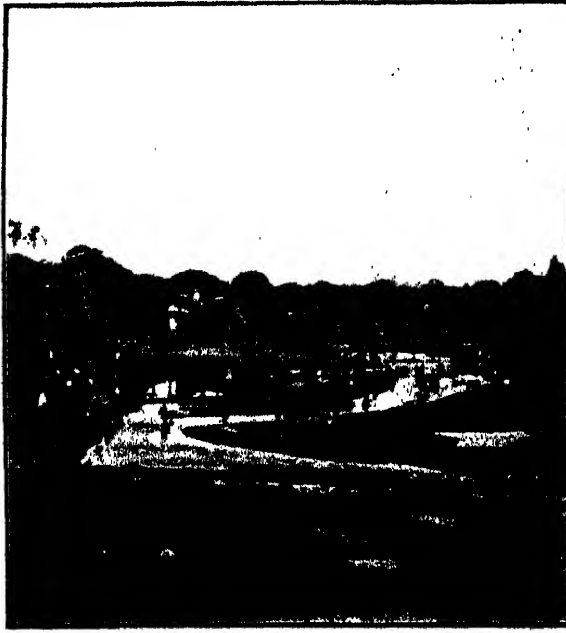
THE RAILWAY STATION, HYDERABAD.



The State of Hyderabad.

This important Mahomedan State, better known as the Dominions of His Highness the Nizam, forms a polygonal

The country of the Nizam presents much variety of surface and feature. In some parts it is mountainous, wooded, and



PANORAMIC VIEW OF THE GODAVARI RIVER.

tract, occupying almost the centre of the Deccan plateau. The country has an average elevation of about 1,250 feet above sea-level, and is divided into two large and nearly equal divisions, geologically and ethnologically distinct, separated from each other by the rivers Manjira and Godavari. The portion to the north and west belongs to the trappean region, that to the south and east being granitic and calcareous. The area of the State is 82,698 square miles. Of this area about 56,000 square miles are under State management, about 20,000 square miles are held as jagirs; the balance being the appanage of His Highness the Nizam, and generally known as *Sarfi-khas* property.

is mountainous, wooded, and picturesque, in others flat and undulating. The champaign lands are of all descriptions, including many rich and fertile plains, much good land which is now being brought under cultivation, and numerous tracts, too sterile ever to be cultivated. The soil is in general fertile, though in some parts it consists of a red and gritty mould, little fitted for purposes of agricul-

ture. The trappean or black cotton soil country is a land of wheat and cotton, while the granitic region is a land of rice and tanks. The principal crops are rice, wheat, maize, *joar*, *bajra*, *ragi*, oil seeds of various kinds, fruit and garden produce in great variety, cotton, indigo, sugar-cane, and tobacco. The principal exports are, cotton, oil-seeds, country cloths, hides, metalware, and agricultural produce. The imports are salt, grain, timber, piece-goods and hardware. Among the manufactures of the country may be mentioned the ornamental ware of Bedar, the gold-embroidered cloths of Aurangabad, Gulbarga, and other towns, and the excellent paper of different kinds which is made at Kagazpore, near the fortress of Dau-

latabad. Tussar silk is largely used for making scarfs, *saris*, and other silk fabrics. The tussar cocoons are gathered in the jungles of the southern and eastern districts; the silk is made in exactly the same way as that obtained from cultivated cocoons, and a very durable silk cloth is manufactured from it at Warangal, Mathwada, and Hasanparti in Warangal district and elsewhere. But the best description of tussar silk is manufactured at Narayanpet, and at Mahadeopore in Elgandal district. Warangal was formerly noted for its woollen and silk carpets and rugs, samples of which have been sent to European exhibitions, where they commanded a good sale. The use of aniline dyes, however, has caused much injury to the trade, owing to the fading of the colours. The mineralogy of Hyderabad is chiefly remarkable for gold and coal deposits, and for iron ores, which latter are widely diffused in the lateritic and granitic areas and the sandstone formation found in the Godavari Valley. There was at one time a strong hope of finding diamonds in the south-eastern portion of the country; but the Hyderabad (Deccan) Company, which holds the concession, after spending a large sum of money in prospecting, has apparently abandoned further search, for the present at least.

The climate of Hyderabad during the greater part of the year is temperate and agreeable, being a medium between the extremes of heat and cold. The rainfall is mainly dependent on the summer rains, brought up by the South-West Monsoons; but the eastern and southern portions of the country are also influenced by the autumn rains, when the same currents are deflected on the east-

ern coast. From its peculiar geographical position the country is thus brought within the influence of these vapour-bearing currents from almost opposite points of the compass.

The dominions of the Nizam are bounded on the north by the district of Khandesh and the leased districts of Berar; on the south by the rivers Tungabhadra and Kistna; on the east by the rivers Wardha and Godavari; and on the west by the districts of Dharwar, Kaladgi, Sholapore, and Ahmednagar, all in the Bombay Presidency. A portion of the river Sina also forms the western boundary. The State is divided into two great and equal divisions, geologically, and there is a corresponding agreement in the ethnological aspects of the country, the Godavari and Manjira rivers separating the Mahrattas from the Telugu and Kanarese peoples of the south. The principal rivers are the Godavari and the Kistna, with their tributaries the Tungabhadra, the Purna, the Penganga, the Manjira, the Bhima, and the Maner. There are, besides these, many other smaller streams. The main drainage is north-west to south-east, the country falling in this direction from 2,000 feet near Aurangabad to 1,200 feet at Raichur, and 900 feet at Karnal. The lines of watershed for the smaller streams follow the same direction, separating the valleys of the chief rivers. The most important ranges of hills are the Balaghat Range, running east and west from the taluka of Biloli in Nander. About 200 miles of this range is within the Nizam's territories. In the north the Sahiagri-Parvat Range runs from east to north-west, and a length of about 250 miles is within the Hyderabad State. Another range of hills runs from Daulatabad in the Aurangabad district, eastward in the direction of Jalna, and proceeds into the leased districts of Berar; and still another range runs into the country between the Godavari and the Manjira, passing through Bir, Darur, Mominabad, Udgir, and Kowlass. Clusters of hills, running north and south, connect

the several ranges, and there are a number of less important hill ranges which need not here be specified.

The Godavari, the most important river of the country, is sacred to the Hindus. It rises in the Western Ghats, above Chandur, and takes a south-easterly course, entering the Nizam's dominions near Phultamba in the Aurangabad district, flows through it and the districts of Parbhani, Nander, Indur, and Adilabad for a distance of 500 miles, and changing its course at the north-east corner of Elgandal district, continues in a south-easterly direction for about 170 miles, until it enters the Godavari district of Madras. It is joined by the Manjira, which rises in the Patoda taluk of the Bhir district, after a course of 387 miles through Bhir, Osmanabad, Bidar, Medak, Nander, and Indur districts.

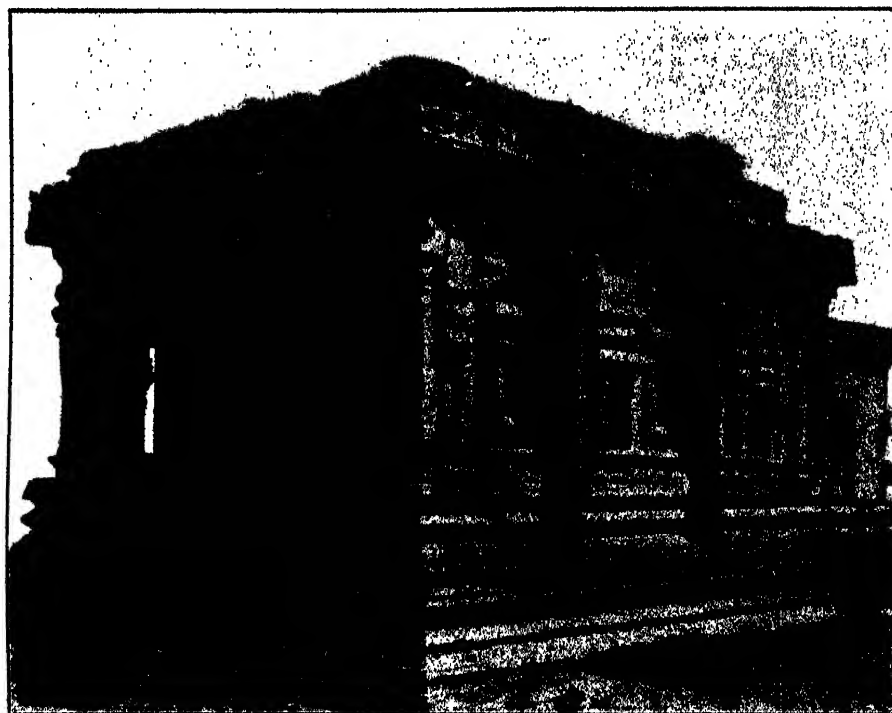
The Kistna is the next river of importance. It has an average breadth of about half a mile, and takes its rise among the Mahableshwar hills, entering the Nizam's dominions at Eachempet. It is in flood during the rains, but is generally fordable in the dry season. The general character of the Tungabhadra, which enters the country near Hampi Sagar and forms the southern boundary for about 175 miles, is much the same as the Kistna. A series of anicuts is built across the river for irrigation purposes. One conduit terminating in another, the whole once formed a continuous line, but at the present time there are some interruptions in its continuity. There are no natural lakes, but from the earliest times advantage has been taken of the undulating character of the country to dam up some low ground or gorge between two hills, above which the drainage of a large area is collected. Such artificial reservoirs are peculiar to the granitic country and wherever groups of granitic hills occur, tanks are sure to be associated with them. They are not generally found in the trap regions, as the soil is too porous and the bunds thrown across become cracked and

fissured in the hot season, so that they are liable to be breached when the rains burst.

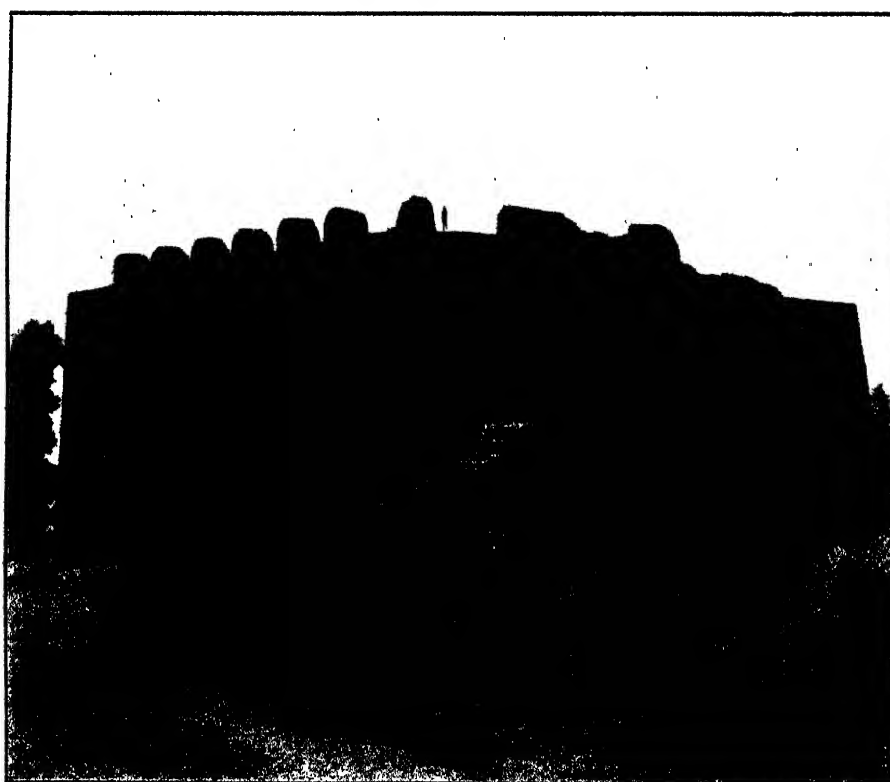
HISTORICAL.

In prehistoric times the great Dravidian race occupied the southern and eastern portions of what is now the Hyderabad State, together with the rest of Southern India, and the Telugu-speaking division of this race constitutes the most numerous section of the population, even at the present time. It is uncertain when the invasion of the Deccan by the Aryans occurred, but as in the adjacent Hindu State of Mysore, Asoka, third in succession in the line of the Mauryan Kings, occupies a prominent position in the early annals of the Deccan, and his dominions in 272—231 B.C. covered a considerable portion of the north-western and eastern tracts of the country and the whole of Berar. Then came the Andhras, who were the next kings to rule the Deccan. Their rise to power dates from about 220 B.C., and the dynasty lasted for a long time, terminating about the year 250 A.D. The next dynasty of importance was that of the Chalukyas, which lasted up to 1189, when their power fell to the Hoyasalas and Yadavas. In the year 1294 Ala-ud-din Khilji led the first Mahomedan expedition into the Deccan. When in 1325 Mahomed-bin-Tughlak ascended the throne of Delhi, the Mahomedans were masters of the Deccan from north to south. A few years later the Mahomedan Governors of the Deccan revolted against the throne of Delhi and their rebellion resulted in the alienation of the Deccan provinces from the Imperial Power, and the establishment of the Bahmani dynasty in what is now the State of Hyderabad.

The founder of this line was, according to a contemporary inscription, Ala-ud-din Bahman Shah, and having taken possession of the Deccan Provinces, including Bidar and Gulburga, he made the latter place his capital and commenced to reign in 1347. The Bahmani Kingdom at that time extended from



HINDU TEMPLE, BECHPALLI.



THE CITADEL, GULBURGA.

Berar in the north to the left bank of the Tungabhadra in the south; from Dabal on the west coast to the Telingana districts in the east. The Bahmani dynasty reached the height of its power under the Bahmani King, Ala-ud-din II, about 1437, and was broken up by its discordant elements between the years 1489 and 1525. Its successive capitals were Gulbarga, Warangal, and Bidar. Out of its fragments five independent Mahomedan kingdoms were formed in the Deccan. It is, of course, impossible to trace here the history of these several dynasties. In 1565 they combined against the Hindu Raja of Vijayanagar, who was defeated and slain in the decisive battle of Talikota. But though the city was sacked and the supremacy of Vijayanagar for ever destroyed, the Mahomedan victors did not themselves advance into the south. Despite frequent internal strife, the Sultans of the Deccan retained their independence until conquered by the Mogul Emperor Aurungzeb in the latter years of the seventeenth century. And this brings us to the founder of the existing Royal House of Hyderabad.

The dynasty of the present Nizam was founded by Asaf Jah, a distinguished General of the Mogul Emperor, Aurungzeb, of Turkoman descent. After a long life at the Delhi Court, distinguished alike in war and political cunning, Asaf Jah was appointed in 1713, Soubadar or Viceroy of the Deccan, with the title of Nizam-ul-Mulk, which has since become hereditary in the family. The Mogul Empire was at this time torn by internal dissension, and amid the general confusion, Asaf Jah had little difficulty in asserting his independence against the degenerate descendant of Aurungzeb. At the time of his death in 1748, he was firmly established as an independent sovereign, with Hyderabad for his capital, and a kingdom roughly co-extensive with the present State. On his death he was succeeded by his second son, Nasseer Jung; the eldest son, Ghazi-ud-din, holding

high office at the Court of Delhi. The claims of Nasseer Jung were disputed by Mozuffer Jung, his nephew, with the support of Dupleix, the Governor of the French Settlements, who saw in the establishment, through his influence of Mozuffer Jung as Soubadar of the Deccan, and of Chunda Sahib a claimant for the Nawabship of the Carnatic, a sure means of securing the ascendancy of the French in India. The support which Mozuffer Jung received from the French was, in those times, of itself sufficient reason to induce the English to lend their aid and influence to Nasseer Jung. Mozuffer Jung fell into the hands of his uncle, by whom he was imprisoned, but in the following year after the murder of Nasseer Jung by Pathan rebels, he was released, and with the support of the French assumed the authority of Soubadar. After his accession Mozuffer Jung received into his service a body of French troops under the command of Bussy, and assigned to the French large territories near Pondicherry, the Province of Karikal, and the town and district of Masulipatam. He was soon afterwards killed in a mutiny of his troops. His only son being a minor, Salabut Jung, the third son of Asaf Jah, was placed in power by the influence of the French, in gratitude for which Salabut Jung confirmed many of the privileges enjoyed by them, and assigned several districts in the Northern Circars for the pay and equipment of the French auxiliaries in his service. On the outbreak of the war between France and England in 1756, the French were driven out of the Northern Circars by an English force. Salabut Jung, who had advanced to oppose the English, did not feel himself strong enough, without the aid of his French auxiliaries who had been recalled by Count Lally, to risk a battle, and was glad to conclude a treaty granting Masulipatam and other districts to the English, and binding himself to exclude the French from his dominions. The text of this and subsequent treaties between successive Nizams and the

English is set forth in "Aitchison's Treaties, Engagements, and Sunnuds relating to India." The acquisitions of the British in the Northern Circars were confirmed by a Firman of the Emperor of Delhi in 1765, at the same time that the Dewani of Bengal, Behar and Orissa was obtained.

Salabut Jung was deposed in 1761 by his younger brother, Nizam Ali and died two years later in prison. In 1765 Nizam Ali devastated the Carnatic, but was driven back, and at the same time an English force took possession of the Carnatic in virtue of a Firman from the Emperor of Delhi. The Nizam was making active preparations for the continuance of hostilities, but the Madras Government, then labouring under pecuniary difficulties and alarmed at the prospect of a war, deputed General Calliand to Hyderabad to negotiate peace. These negotiations resulted in a treaty by which for the Circars of Ellore, Siccacole, Rajamundry, and other districts, the British Government agreed to furnish the Nizam with a subsidiary force when required, and to pay nine lakhs a year when the assistance of their troops was not required. The Nizam on his part agreed to assist the British with his troops. Under this treaty a corps of two battalions joined the Nizam for the reduction of the fort of Bangalore—then in the possession of Hyder Ali with whom the British Government was on hostile terms; but it was soon withdrawn in consequence of the Nizam having treacherously deserted the British alliance, and invaded the Carnatic in conjunction with Hyder Ali. The Nizam, however, was soon compelled to separate from Hyder, and in 1768 another treaty was concluded between the British Government and the Nawab of the Carnatic on the one part, and the Nizam on the other, by which the Nizam revoked all Sunnads granted to Hyder Ali by the Soubadars of the Deccan; agreed to cede to the English the Dewani of the Carnatic above the Ghats, which had been seized by Hyder Ali, on condition of their paying him seven lakhs of rupees a

year; stipulated not to interfere with the possessions of the Nawab of the Carnatic, and to accept a reduced payment for the Northern Circars. The engagement between the English and the Nizam mutually to assist each other with troops was altered into an agreement to furnish the Nizam, on requisition, with two battalions of sepoys with guns, on condition of the Nizam defraying their expenses; it being understood that the force has not to be employed

should invade Tippoo's territories, and should furnish a contingent of 10,000 horse to be paid for by the British Government; that an equal division should be made of the territories conquered, and that if, after the conclusion of peace, Tippoo should attack any of the contracting parties, the others should join and punish him. On the termination of the war territories yielding an annual revenue of 13,16,000 Pagodas were made over to the Nizam

the Nizam had given his verbal consent to it. It was at this time that the Mahrattas revived a claim against the Nizam for arrears of *chout* and threatened hostilities if it were not satisfied. The Nizam applied to the British Government for aid, but the treaties with the Mahrattas precluded the English from any interference between the disputants, except in the capacity of mediator. War broke out in 1795 and terminated



IRREGULAR CAVALRY IN THE LANGUR PROCESSION.

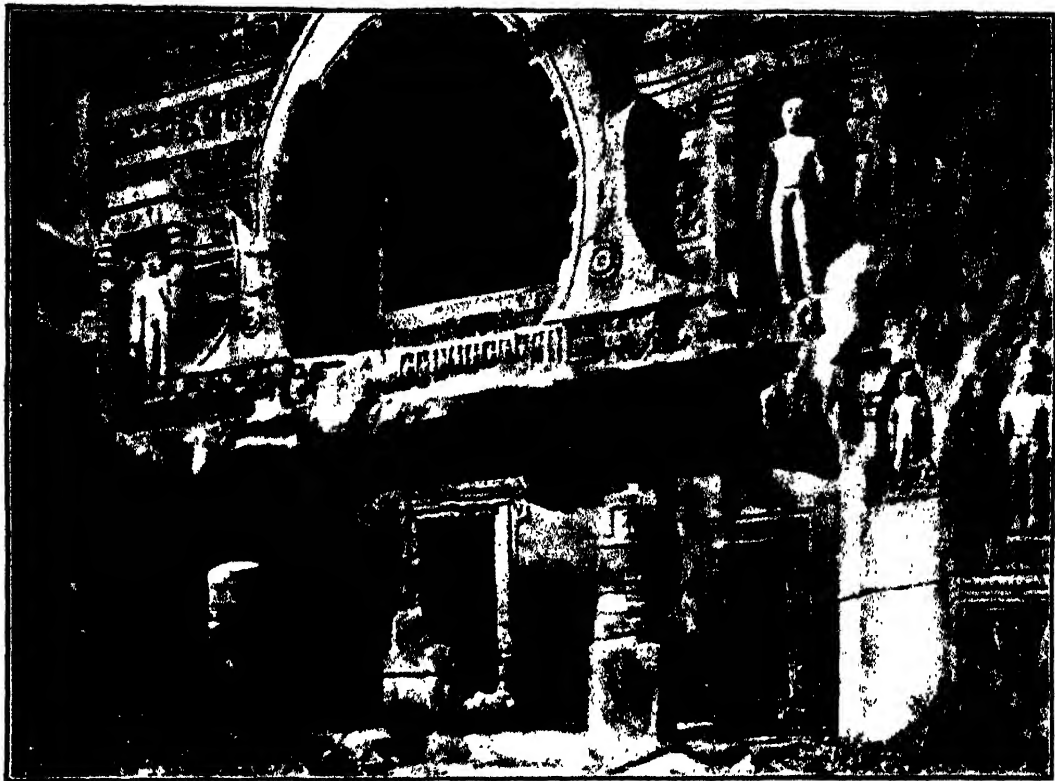
against any person in alliance with the English.

On the breaking out of the first war with Tippoo Sultan, Lord Cornwallis made every effort to secure the co-operation of the Nizam, by promising him full participation in the advantages that might result from the war, and a treaty of offensive and defensive alliance was concluded with him in 1790. By this treaty, to which the Peishwa was made a party, it was stipulated that the Nizam and the Peishwa

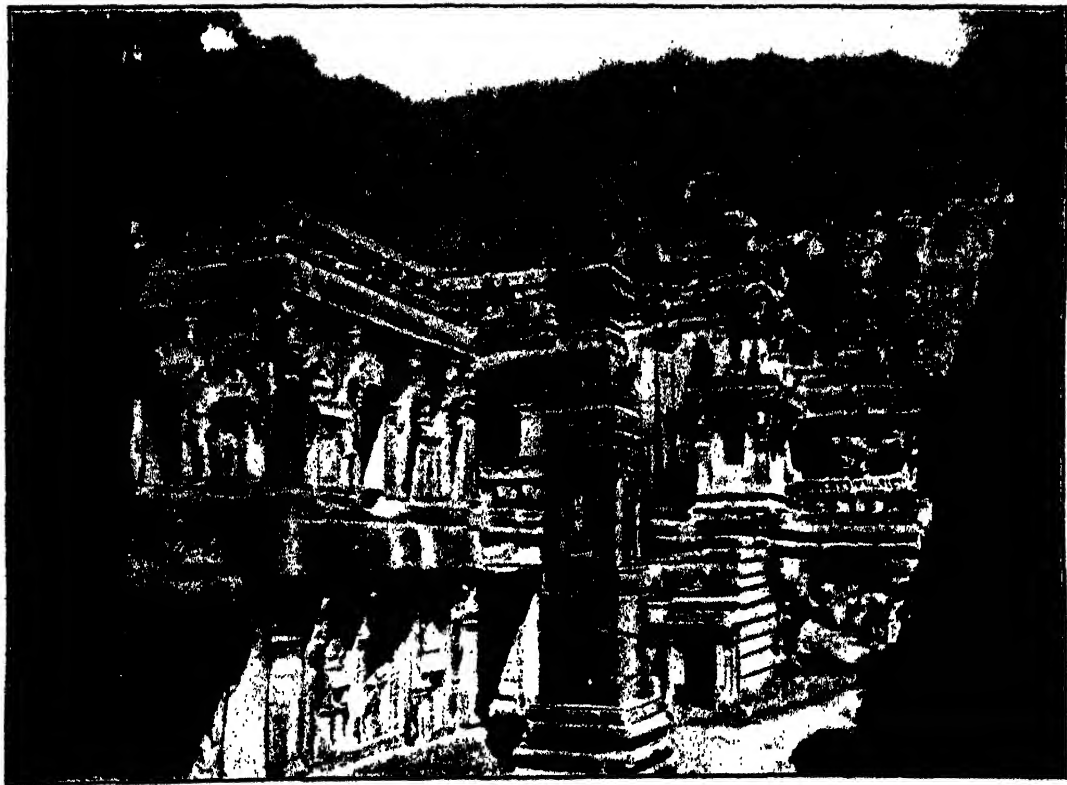
as his share of the conquests.

After the conclusion of peace Lord Cornwallis transmitted to Hyderabad and Poona proposals to reduce to a definite treaty the mutual guarantee against Tippoo which had been stipulated for in the Treaty of 1791. But owing to the delay and evasions of the Peishwa, whose designs against Tippoo and the Nizam would have been frustrated by the engagements proposed, the conclusion of the treaty was abandoned, although

in the Convention of Kurdla, by which the Nizam was compelled to cede to the Mahrattas territories yielding a revenue of thirty-five lakhs of rupees; to pay three crores of rupees; and as a hostage for the fulfilment of these terms, to give up his Prime Minister. Three-fourths of the territory ceded by the Nizam was afterwards recovered during the dissensions which followed the death of Madho Rao Peishwa. But the presentment created in the mind of the Nizam



ENTRANCE TO CAVE NO. 10, AJANTA.



TEMPLE OF KAILASA (CAVE NO. 16), ELLORA.

by the refusal of the British Government to aid him in his extremity, or to permit the subsidiary force to accompany him in the war, led him to entertain in his service a body of troops commanded by French officers, and to dismiss the British subsidiary force. Friendly relations with him were therefore threatened with rupture, but before matters came to a crisis the rebellion of his son, Ali Jah, compelled him to beg the return of the subsidiary force. The return of the Prime Minister, Azim-ul-Umrah, who had been given to the Mahrattas as a hostage, was also favourable to British influence, and as the threatening attitude of Tippoo made a closer connection with Hyderabad desirable, a treaty was concluded in 1798, by which the subsidiary force was made permanent and raised to six battalions, costing Rs. 24,17,100 per annum. By the terms of this treaty, which was the eighth treaty entered into between the Nizam and the British, the Nizam's French corps was to be disbanded, and the British Government was to arbitrate between the Nizam and the Peishwa, or, in the event of the Peishwa not consenting to that arrangement, to protect the Nizam from any unjust and unreasonable demands of the Mahrattas. On the outbreak of the second war with Tippoo in 1799, the subsidiary force and the Nizam's army co-operated with the British troops and after the fall of Seringapatam, the Nizam received, by the Partition Treaty of Mysore, districts yielding a large amount of revenue; and to these were subsequently added two-thirds of the territories which were offered to, but rejected by, the Peishwa. The jealousy with which the Mahrattas viewed the operations against Tippoo, and the threatening attitude which they assumed, led the British Government to strengthen their connexion with the Nizam, and a new treaty was concluded with him in 1800, by which two battalions of infantry and one regiment of cavalry were added to the subsidiary force; and for the payment of the force the Nizam ceded all the territories he had acquired by the Mysore Treaties of

1792 and 1799, subject to some exchanges to secure a well defined boundary. The treaty regulated the duties on which the subsidiary force was to be employed, secured the Nizam in the sovereignty of his dominions, prohibited his entering into political negotiations with other States, and made the British Government the arbiter in his disputes with other Powers. In consequence of the equivocal conduct of the Nizam in the first Mahratta war, and the refusal of his officers to receive the wounded in the battle of Assaye into the forts of Daulatabad and Darur, an additional Article was added to the Treaty of 1800, requiring the contracting parties to admit the troops of either party into their forts when called upon. (Treaty with the Nizam, 1800). No. 10 in *Aitchison's Treaties*.

Nizam Ali died in 1803 and was succeeded by his son, Sikandar Jah, and on his accession all existing treaties were confirmed. In the following year by the Partition Treaty of Hyderabad, dated 28th April 1804, cession was made of the Deccan territories taken from the Maharaja Scindia in the Mahratta war. It was in the reign of Sikandar Jah that the reform of the military establishments was commenced, and a regular army, disciplined by British officers, organized. The Nizam's newly organized forces proved of much service in the Pindari and Mahratta wars of 1817; and after the overthrow of the Peishwa these services were recognized by the Treaty of 1822, whereby the Nizam received a considerable accession of territory, was released from all arrears of tribute which he owed to the Peishwa and from all future demands for it. By this treaty some further exchanges of territory were effected to secure a better defined frontier. Sikandar Jah died in 1829, and was succeeded by his son, Nasir-ud-Daula, who was confronted at the outset of his reign with difficulties created during the latter years of his father's rule. The country had suffered much from the practically irresponsible administration of Sikandar Jah's Minister, Chundoo Lal, by whom the revenues of the State had been farmed to con-

tractors who were supreme in their several districts. The grossest oppression prevailed, and the country was in possession of robber bands. For the restoration of order it became necessary to employ British officers in the different districts, and under their administration, order was gradually being restored. When Nasir-ud-Daula came to the throne he requested that the direct interference of the British officers in the administration might be discontinued, and this request was complied with. The withdrawal of British officers was immediately followed by a return to disorder, and a new arrangement with the Nizam became absolutely necessary. Therefore, in 1853, a new treaty was concluded, by which the British Government agreed to maintain an auxiliary force of not less than 5,000 infantry, 2,000 cavalry, and four field batteries of artillery; and, to provide for its payment, the Nizam ceded in trust districts yielding a gross revenue of fifty lakhs of rupees, it being agreed that accounts should be annually rendered to the Nizam, and that any surplus revenue that might accrue should be paid to him. The districts thus ceded consisted, besides Berar, of Osmanabad and the Raichur Doab. By this treaty the Nizam, while retaining the full use of the Subsidiary Force and Contingent, was released from the obligation of furnishing a large force in time of war. The Contingent ceased to be part of the Nizam's army and became an auxiliary force, kept up by the British Government for the use of the Nizam.

Nasir-ud-Daula died in May, 1857, and was succeeded by his son, Afzal-ud-Daula. This was a critical period in the history of the State, for during the Mutiny of 1857, the maintenance of order at Hyderabad was necessary for the success of the military operations in the Deccan and Central India. The hopes of the disaffected were excited by the succession of a new Chief, and in July 1857, an attack was made on the Residency—which was, however, repulsed. The efforts of the Resident to preserve order were ably

seconded by the Nizam's Minister, the first Salar Jung, who had been appointed to this post with the approval of the British Government in 1853. It was feared that, should the dominions of the Nizam break into open revolt, Bombay and the whole of Southern India would rebel. But the Nizam remained staunch throughout the period of trouble, and cast in his lot with the British. In recognition of the loyalty of the Nizam the British Government, after the storm had passed, created him a Knight of the Most Exalted Order of the Star of India, and further, modified the Treaty of 1853, which required the submission of annual accounts of the Assigned Districts, and was productive of much trouble and inconvenience. A new treaty was, therefore, concluded with the Nizam in 1860, by which a debt of fifty lakhs of rupees due to the British Government was cancelled; the territory of Sholapur was ceded to the Nizam; and the districts of Osmanabad and the Raichur Doab were restored to him. On the other hand, the Nizam ceded certain districts to the British, and agreed that the remaining Assigned Districts in Berar should be held in trust by the British Government for the purpose specified in the Treaty of 1853; and that no demand for accounts of the receipts or expenditure of the Assigned Districts should be made. It was at that time the object of the British Government to obtain the sovereignty of the Assigned Districts, so as to administer them through any agency it pleased; but to this the Nizam would not consent. He, however, conferred on the British Resident at Hyderabad authority to enquire into and to punish offences committed by Europeans and others in Hyderabad territory, and

the practical value of this *Sunnad* consisted in the proof it afforded that the Nizam directly consented to the trial of such offences by the British Government, and waived all claim to have them tried in his own courts. The Nizam at this time received a guarantee that any succession to his State, made in accordance with Mahomedan law and the customs of his family, would be recognised.

Atzal-ud-Daula died in 1869, and was succeeded by his son, the present Nizam. As he was, at the time of his father's death, but three years of age, a Regency was constituted for the administration of the country, with Sir Salar Jung I as Regent, and the Nawab Shams-ul-Umara as co-Regent, the British Resident being consulted on all important matters

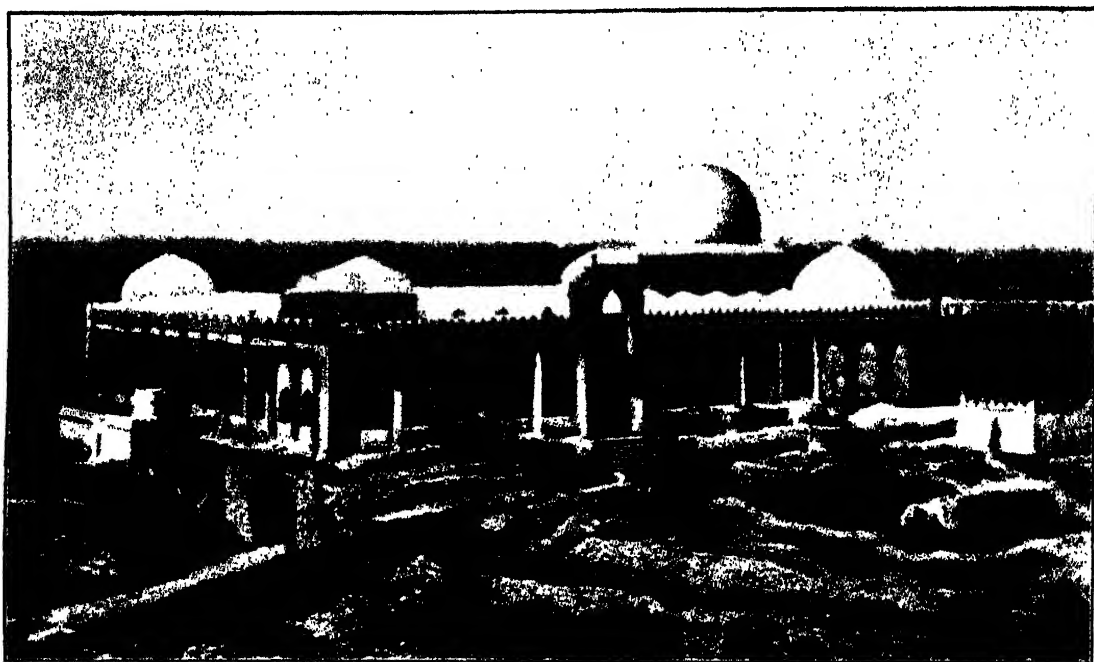
concerning the welfare of the State. On the death of the co-Regent in 1877, his half-brother Nawab Vikar-ul-Umara was appointed co-administrator; but he also died in 1881, Sir Salar Jung I remaining sole administrator and Regent until his death in 1883. In the following year His Highness Mir Mahbub Ali Khan, having attained his majority, was installed by Lord Ripon, Sir Salar Jung II being appointed Minister.

ADMINISTRATION.

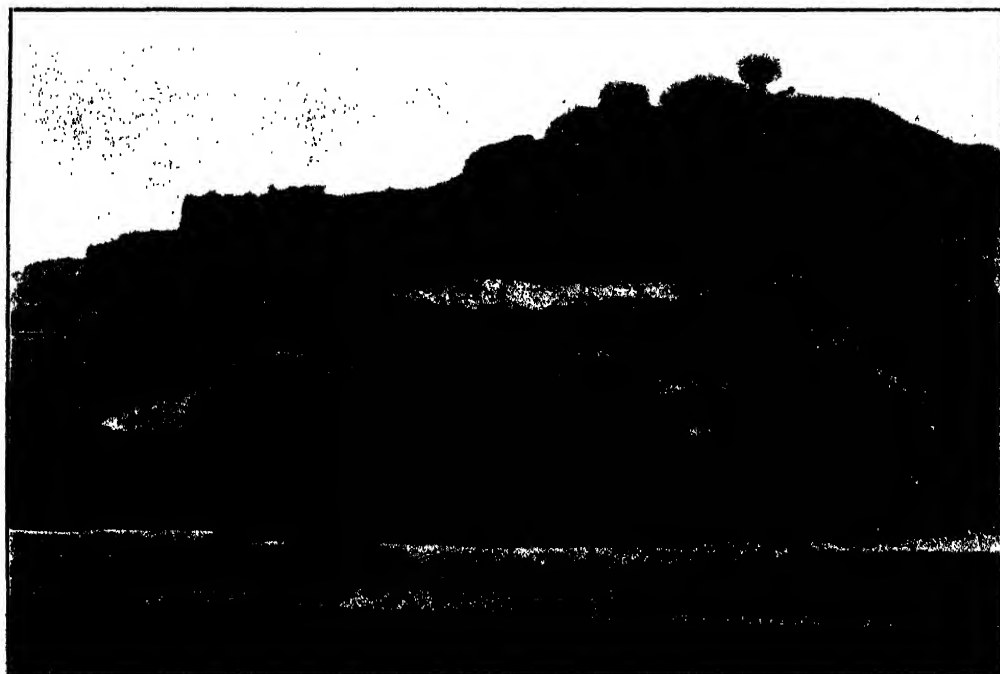
His Highness the Nizam is the supreme authority in the State in all matters, and his decision is final on every question. In every case involving consequences of an important or permanent character, a report is made to him and his order obtained. The administrative and executive head of the Government is the Minister, who is aided by Assistant Ministers who are in immediate charge of the various departments of the State. For consultative and deliberative purposes there is a Cabinet Council, of which the Minister is the President and such Assistant Ministers as are also Nobles of the State are members. There is also a Legislative Council for the enactment of laws, of which details are given further on. The respective powers of the Minister, Assistant Ministers, Cabinet Council and Legislative Council have been defined in ordinances and acts issued or sanctioned by His Highness the Nizam. The present form of administration was prescribed by the original instructions issued by the Nizam in the Edict of 1803, subsequently modified in some respects. There are Secretaries and Assistant Secretaries in each Department, who lay all papers, except those of the most ordinary routine, before the



THE CHAND MINAR, DOULATABAD.



THE GREAT MOSQUE AT GULBURGA.



THE FORT, RAICHUR.

Assistant Ministers of their respective departments in the first instance, and afterwards before the Minister, in case the subordinate concerned is not competent to issue final orders on the particular subject in hand. The Financial Assistant Minister has charge of the departments of finance, mints, railways and mines; the Judicial Assistant Minister has under him the judicial department, jails, registration, medical, post office, and religious institutions. The Military Assistant Minister disposes of the work of the regular and irregular and the Imperial Service Troops; the Miscellaneous Assistant Minister has under him the police, public works, education, municipalities, and sanitation. The Revenue Department is directly under the Minister, who exercises control over the departments of land revenue, revenue survey and settlement, customs, *inam*, excise and abkari, forests, agriculture, commerce, and local funds.

The district administration is carried on by Soubedars, who are heads of Divisions, assisted by Talukdars and Tehsildars. The Judicial Department is immediately supervised and controlled by the High Court. The District Police is in charge of an Inspector-General, who is a British officer lent by the Government of India, and who also holds the post of Inspector-General of Jails. The City Police is under the control of a Commissioner. The executive charge of the Irrigation Department is in the hands of a European officer, while the executive head of the buildings and roads branch is generally selected from among the local officers of the State Public Works. Forests are looked after by a Conservator, and Municipalities and Local Boards are established at all important centres.

The lands of the State are divided into four principal classes, *i.e.*, Khalsa, Sarfi-i-Khas, Paigah, and Jagir. Khalsa lands are the property of the State, and the land revenue and cesses collected thereon are paid into the State Treasury. Sarfi-i-Khas are lands the income of which is enjoyed by the Ruler of the State. Paigah lands are

held by some of the leading Nobles as military fiefs. Jagir lands are those which have been granted to individuals at various times by the Ruler of the State, either in return for service or by way of Royal favour. The revenue of such land is collected and enjoyed by the Jagirdar, subject sometimes to payment of tribute. The land-revenue of the State is collected from the main body of State agriculturists under the ryotwari system. For purposes of land-revenue and general administration, the Nizam's territory is divided into four Subahs or divisions, sixteen districts and one hundred and seven taluks, exclusive of eleven Sarfi-i-Khas taluks. Most of the country has been surveyed and settled, but there are still some parts where survey and settlement have not been carried out. Each Subah is under a Commissioner and each District under a Collector. Exclusive of the Crown lands, but including all the Jagir and Paigah lands, each of the four Subahs has an average approximating 20,000 square miles.

Under the ryotwari system each field is considered a holding, which the ryot holds directly from the State, and the holder or occupant of the field is called the *pattadar*. The right of occupancy depends on the regular payment of the assessment by the *pattadar*, and in case of failure to meet the demand he forfeits his right. In such a case the land reverts to the State, and the right of occupancy is sold by auction to satisfy the demand for arrears. The period of holding is nominally one year, but if the holder pays the assessment and dues regularly, he may retain his land indefinitely. A *pattadar* may relinquish his land by giving due notice of his intention to do so, or he may sell or transfer his right if he chooses so to do. Of the other systems of tenure, a *jagir* is a free grant of one or more villages, and the tenure may be classed under four heads: *al tamgha* or *inam-al-tamgha*, which are grants of an hereditary or permanent nature; *Zat Jagirs*, or personal grants for the maintenance of the grantees; *paigah jagirs*, or grants to the nobles of the State for maintaining

troops for the Nizam, and *tankhawah-i-mahallat* or grants in lieu of certain local payments that were binding on the State. The *inam* lands are granted for service or charitable purposes, either free of revenue or subject to a quit-rent. *Makta* or *sarbasta* resembles the *jagir* tenure, except that the holder has to pay a certain fixed proportion of the revenue to the State; it is also known as *palampat* in the Maratha districts. *Peshkash*, or annual tribute, is realised from large zemindari estates, and other miscellaneous receipts from fruit trees, grazing lands, *jagirs* under temporary attachment, fines and forfeitures.

The Excise revenue of the State is derived from the following intoxicants and drugs:—Toddy, country spirits, foreign spirits, opium, hemp-drugs, and other drugs. The District Excise farms are under the supervision and control of the Revenue authorities. The farms in the City circle (which comprises the City of Hyderabad and the cantonments of Secunderabad and Bolarum) are looked after by an officer styled the Talukdar of Abkari.

With the exception of certain exempted articles, a customs duty not exceeding 5 per cent. of the value of any article is levied on all imports and exports in His Highness' dominions. The Civil and Military officers of the British Government stationed in the Nizam's dominions, the chief nobles and *Jagirdars* of the State, the higher officials of the Government and other influential persons are exempted by general or special orders from payment of any customs duty in respect of articles intended for their personal or private use, and not for sale. Opium which is subject to a special excise duty, is excluded from the Customs tariff, but salt pays a duty of Rs. 2 per 120 seers. In order to encourage local manufactures, the duties payable on certain cloths made at Narayanpet and Mahbubnagar have been exempted from duty since 1898. In the same year the system of receiving fixed monthly payments from certain dealers in gold, silver, and precious stones in satisfaction of the demand for ordinary duty on articles imported



THE PARADE, SECUNDERABAD.



HUSSAIN SAGAR LAKE, FROM THE BLACK ROCKS.

or exported by them, was abolished, and they were from that year made liable to the general customs tariff. A great deal of silver smuggling is carried on, and large rewards are promised to persons instrumental in detecting cases in which the guilt can be proved.

REVENUE AND EXPENDITURE.

The principal heads of revenue are the Land Revenue, Customs, Excise and Mint. In the Revised Budget Estimates for the latest year for which figures are, at the time of writing, available, the receipts under these four heads furnish upwards of three-fourths of the total estimated revenue. Other sources of income are Opium, Forests, Stamps, Mines, Registration, Public Works, Post Office, Law and Justice and sundry receipts by Civil Departments. With the Land Revenue, Customs, and Excise we have already dealt; and we now come to another important, but very irregular, source of revenue, the Mint. The history of the Hyderabad currency and coining operations forms a most interesting chapter in the history of the State, to which the limits of space will not allow us to do full justice. Prior to the introduction of the Halli Sicca currency by the first Sir Salar Jung in 1855, coining was carried on in several Mints, situated in various parts of the Nizam's dominions, most of them being owned, not by Government, but by powerful *Jagirdars*, who derived large profits from the manufacture. The natural consequence was an extensive debasement of the coinage. In 1855, Sir Salar Jung established a new Hyderabad Mint, and introduced a new coinage to which he gave the name of Halli Sicca. The new rupee weighed 172.5 grains, and contained 2 *mashas* of alloy to 9 of silver.

The City Mint, when started, was a very small one, capable of turning out not more than 3,000 coins a day, all hand made. In the first year the outturn did not exceed a lakh of rupees, but in the following year steady progress was made, and towards the end of 1856, when about 18 lakhs had been minted, a notification has

issued forbidding coinage elsewhere than in the Hyderabad City Mint. The process of introducing the new Halli Sicca Rupee went on slowly at first, and for some time its circulation was confined to the city and suburbs. In the districts the old rupees remained in circulation and no steps were taken to discourage their use, beyond this, that only Halli Siccas were accepted at Government Treasuries in payment of Government demands. Free coinage was allowed in the Mint up to 1893, but after that date comparatively little silver was coined. The stock of rupees in circulation became somewhat depleted, and the rate of exchange between the State rupee and the British rupee, after fluctuating violently in 1901 and 1902, became fairly steady, the former exchanging at about 8 per cent. above its bullion value.

In 1904, the building of a new Mint and the importation of fresh machinery were vigorously pushed on, and by the end of the year the new Mint was in working order. Meanwhile an improved coin of a new design had been decided on, and the old Mint had been kept working during the first ten months of the year, and during this period 80 lakhs of the new *Char Minar* rupees were coined. When the new Mint was opened, the minting of the improved rupees was carried on at the new establishment, and since then the supply has been so regulated as to prevent serious fluctuations of exchange value.

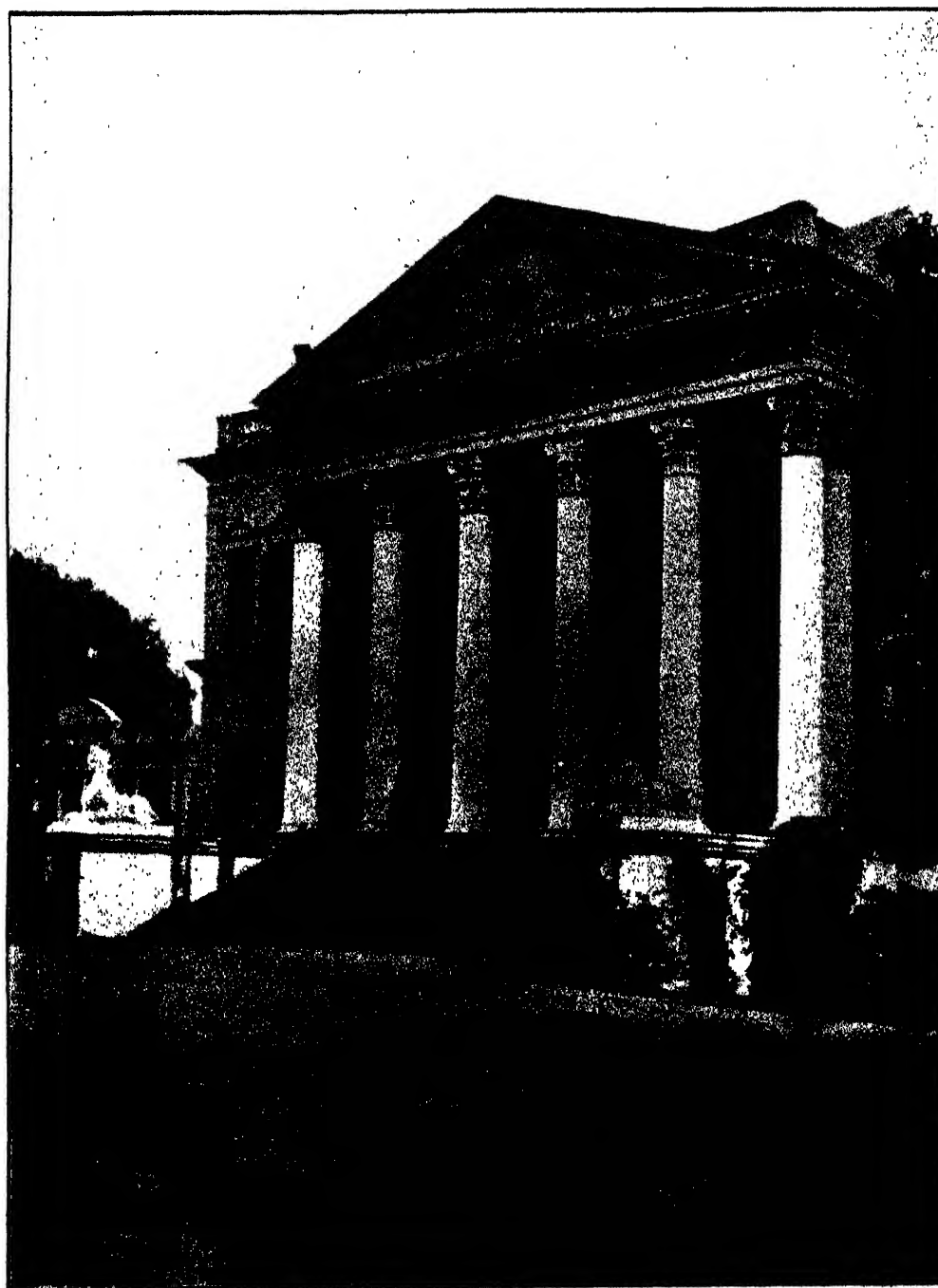
The rate now stands at between 115 and 116 to 100 British rupees. The copper coins issued by the State were, till recently, oblong pieces of about 2 pies in value. Since 1905, however, copper coins of a better pattern have been issued from the Hyderabad Mint, representing the same value. Half-anna coins have also been made.

As in former years, gold is still received in the Mint for manufacture into *Ashrafis* or fractions of *Ashrafis*. These gold coins are not current in the Nizam's dominions for purposes of exchange, but are often presented as *Nazars* to His Highness or other well-to-do people. Also, they are often obtained and worn as ornaments. On grand occasions they are distributed in charity

or as gifts on behalf of the Nizam. All told, there is no large demand for them.

The revenue derived from Forests is small in amount, averaging, over a period of five years, about 4½ lakhs of rupees only, per annum. The administration of the State Forests is under the control of a Conservator, and the management of the department is guided by the Forest Act of 1899, which empowers the Conservator to exercise full control over reserved and protected forests, and reserved species of trees in open forests. Timber is supplied to purchasers at fixed rates, while cultivators receive free timber and fuel for agricultural implements and domestic purposes. Minor produce, such as grass, branches, and leaves, etc., is granted free to the local ryots and free grazing is permitted under certain restrictions. After meeting the local demand, timber of various kinds is exported to different parts. The forests form six divisions—Warangal, Indur, Mahbubnagar, Anurungabad, Nirmal, and Gulbarga, and each division is under an Assistant Conservator. Sixteen species of trees are reserved in the open forests, as follows:—Sandal, teak, ippa, nall maddi, tiruman, sheesham, ebony, satinwood, bij-sal, buthigamupu, soini, kodarsi, sandra, bendaru, nokub, and chumangi. Of these, the first five only are found in any number in the open forests, the others being exceedingly rare.

Under Public Works, the most important, from a revenue point of view, are the railways, and the Nizam's Guaranteed Railways Co., Ltd., work the existing railway lines in the Nizam's dominions. These lines consist of a broad gauge railway from Wadi through Hyderabad and Secunderabad to the south-eastern frontier of the Hyderabad State, a distance of 330 miles, and a metre gauge railway, called the Hyderabad-Godavery Valley Railway, which runs from Hyderabad to Munmar, 391 miles. The south-western corner of the State is crossed for 137 miles by the broad gauge line from Bombay to Madras. About 120 miles of this line belong to the south-eastern section of the Great Indian Peninsular, while the remainder is part of the



THE RESIDENCY, HYDERABAD.

north-western branch of the Madras Railway, the junction being at Raichur. The Nizam's Guaranteed State Railway is owned and worked by a company under a guarantee from the Hyderabad State, and the same company works the metre gauge line, capital for which was raised by the issue of redeemable mortgage debentures. An extension on the metre gauge from Purna to Akhola, a distance of 137 miles, is contemplated, which will link up the Rajputana-Malwa and Southern Mahratta systems: and several other surveys are now being carried out.

The only mine that is being profitably worked at present is the Singareni coal mine in the Warangal district. This is being worked by the Deccan Mining Company, and as the output is considerable (2,100,882 tons, during the five years 1898-1903), the Royalty paid to the State is corresponding large, and is increasing in amount yearly. The Gold Field workings in Raichur have showed but poor results. The Hyderabad State is rich in minerals, and the reason why mining enterprise has made so little headway up to the present is that the Deccan Mining Company, who had obtained for a few years a monopoly of prospecting for minerals throughout the whole of the Nizam's dominions, had, in 1891 and 1892, made extensive claims to mining areas in which the Nizam's Government were unable to acquiesce. The disputes that ensued prevented the original company from either undertaking themselves, or leasing out to other companies, fresh mining areas, and also barred fresh applications for prospecting rights from others. Arbitration was recently resorted to, and from latest accounts, the disputes are likely to be settled amicably. It is well established that deposits of iron ore of varying qualities are widely distributed over the lateritic and granitic tracts of the State, while similar deposits have been discovered in the sand-stone formations in the Godavery and Wardha Valleys. In the tract situated between the Kistna and Tungabhadra rivers, hematite occurs in considerable quantities. Among other minerals found in the country may be mentioned mica, fine

specimens of corundum and garnets, and a small deposit of graphite in the vicinity of Hasanabad. A copper lode has recently been discovered at Chintrala in the Nalgonda district, which promises to be remunerative. Excellent limestone is quarried at Shahabad, between the Wadi Junction and Gulbarga on the Great Indian Peninsular Railway. In addition to the minerals already mentioned, red chalk and saline deposits have been found. From ancient times diamond mines have been worked in the alluvial deposits round about Partyal, near the Kistna, as well as in other localities in the alluvial tract of the same river. Trials made in recent years by the Deccan Mining Company, involving a considerable outlay, proved unsuccessful. Only stones of very small size were found, the gangue having been worked out by the old miners.

LEGISLATION AND JUSTICE.

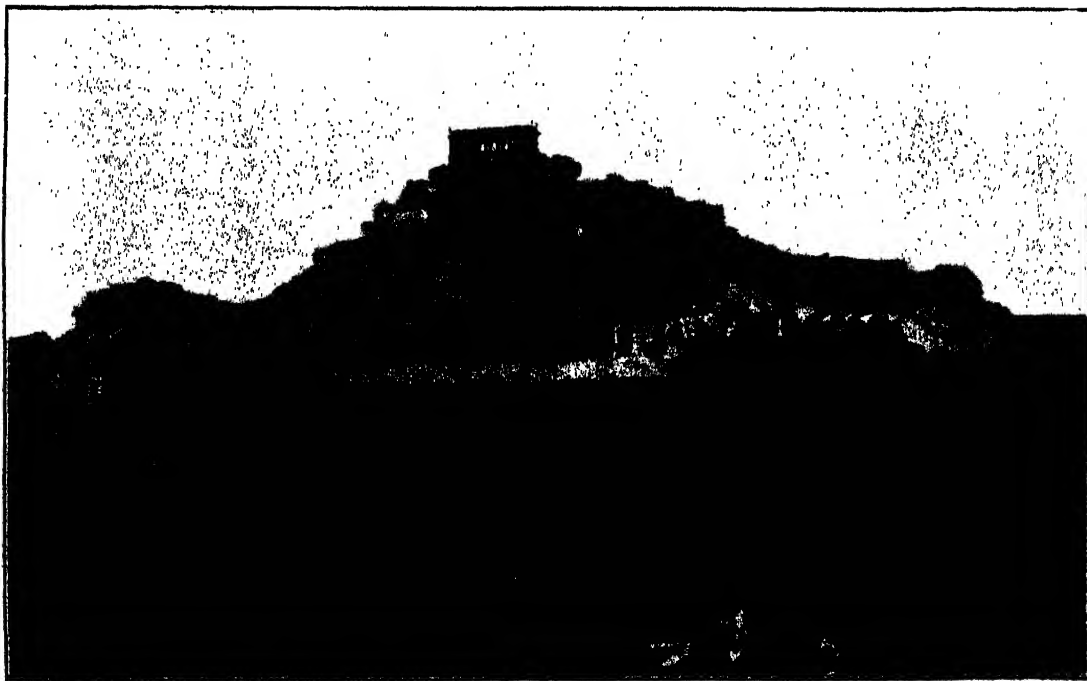
The legislative authority in the Nizam's dominions is the Hyderabad Legislative Council, established by a Firman of His Highness the Nizam in 1893. In the following year "Act I of 1304 Fasl" received the Nizam's sanction, recognising the right of the people to share in the work of framing laws, and to representation. In 1900 this Regulation was re-enacted, with certain modifications, and is still in force. The Council consists at present of a President and Vice-President, eleven official and six non-official members. The Minister is the President, and the Assistant Minister, whose department is concerned with the particular Bill before the Council, is the Vice-President for the time being. Of the official members, the Chief Justice, the Judicial Secretary, and the Legal Adviser, are *ex-officio* members, the other eight official members being nominated by the Minister for two years. Of the six non-official members, two are elected by the *Jagirdars* and landowners, two by the pleaders of the High Court, and the remaining two are nominated by the Minister from among the people. The Criminal Code, which was passed and came into force three years after the establishment of the Council, was drawn up, with

certain alterations, on the lines of the Criminal Code now in force in British India. It supplied a long-felt need and has relieved the Courts of much uncertainty as to the law in dealing with criminal cases. Other important Acts that have been passed in recent years deal with the regulation of procedure of Courts of Civil Judicature; and the consolidation and amendment of the Law relating to Criminal Procedure. The Evidence Act was passed in 1904, and the High Court Regulations were amended in the following year. Bills introduced into the Legislative Council are based on Mahomedan jurisprudence, the Hindu Shastras, special laws binding on a particular community, or customs and usages having the force of law.

The High Court, which consists of five Judges, is the Supreme Court of the State, and exercises both Original and Appellate Jurisdiction in civil and criminal matters. It also maintains a general supervision and control over all the other Courts, for the exercise of which the Chief Justice, or any Judge of the High Court whom he may appoint, is authorised to go on circuit to inspect the various Courts. In its administrative capacity, the High Court is empowered to issue rules and regulations for the guidance of all Courts, in consonance with the law, to alter them from time to time, and to suggest to the Government the introduction of any new, or amendment of any old, law which it may consider necessary. There are now 123 Civil and 271 Criminal Courts for the administration of justice. *Tahsildars* may try suits up to a limit of Rs. 100, but very few exercise these powers. In the City of Hyderabad, besides the High Court, are the Kazi's Court, the City Civil Court, and the City Criminal Court. The Kazi's Court has jurisdiction in original suits between Mahomedans, relating to betrothal, marriage, divorce, guardianship, dowry, maintenance, succession, inheritance, and all such matters. The City Civil Court adjudicates upon civil suits arising in the city, and not exceeding Rs. 5,000 in value. The City Criminal Court disposes of all criminal cases arising in the city, which can be dealt with by a



VIEW FROM THE CITADEL, GOLCONDA.



VIEW OF THE CITADEL AND FORT WALLS, GOLCONDA.

first-class Magistrate. There is a special Magistrate for the trial of *Thuggi* and *Dacoity* cases. Formerly a large number of influential people were exempted from attendance in the Courts; but this privilege was abolished in 1900, and no one can now claim exemption as a right.

MUNICIPAL AFFAIRS.

The most important Municipalities in the State are those of Hyderabad and Chudderghat, which have, since 1903, been amalgamated, and placed under a special officer, styled the Secretary to the Committee. Municipal administration was first introduced into Hyderabad in 1860, and seventeen years later the Chudderghat Municipality was established, and, as stated above, was later on amalgamated with the older body. The principal sources of revenue to the Municipality are special grants by Government in the way of contribution: taxation on houses, animals and vehicles, slaughter-house and bazaar fees, water rates, and other smaller items. The special grants do not properly belong to the Municipality, but are rather expended through the agency of the Municipal Committee by Government for the sake of convenience. The members of the Committee are called Municipal Commissioners, and number twenty-seven. The President and some of the members are officials, while the remainder are selected from the vakils of the High Court, bankers, representatives of the *Sar-i-khas* and Paigah departments and other persons not in State employ.

All the leading district towns in the State have been constituted into Municipalities, and the Local Cess has been introduced in all settled districts. It is at present in force in 110 talukas and provides funds for the construction and maintenance of roads, schools, dispensaries, rest-houses, and other works calculated to benefit the people of the district. It is collected with each instalment of revenue paid by the cultivators, at the rate of one anna per rupee of land revenue, and is credited in the accounts as follows. —Village Police fund, 4 pies; educational fund, 2 pies; road fund, 2 pies; medical,

1 pie; and general improvement fund, 3 pies. The village Police fund is credited to the State which meets the cost of the village Police; the educational fund is controlled by the Educational department. At present there are 15 District and 94 Taluk Boards. A District Board is composed of 14 members, half of them being officials and half non-officials. A Taluk Board consists of five members, two officials and 3 non-officials.

ARCHÆOLOGY.

The Nizam's dominions are rich in remains of antiquarian interest or historical importance. The finest rock temples and caves in India are to be found within the limits of the Hyderabad State. There are numerous old forts, where fates of kingdoms were decided in the past, ruins of large cities which once enjoyed power and splendour, tombs of illustrious men who have left a lasting mark on the country, well-preserved inscriptions, many of them still undeciphered, recounting perhaps the deeds of rulers of men or of benevolent founders of charities, and other relics full of interest to the scientific enquirer and the lover of research and study. With a few only of the more important of these can we deal in this article.

To take the Rock Temples first in order, those of Ellora and Ajunta in the Aurangabad district are well-known. The former is described as the finest group of caves in India. It contains temples dedicated to the service of three religions, Buddhist, Brahmanical, and Jain. The caves of this group vary in age from the 5th to the 9th or 10th century. The Ajunta Caves are situated in a lonely and wild ravine, about three miles in a straight line north-west of Ajunta, which is 52 miles north-east of Aurangabad. They are about a thousand years older than the Ellora Caves, and belong exclusively to the Buddhist religion. They are twenty-nine in number, and are famous for their frescoes, which, however, have been sadly damaged by visitors who cut out pieces and carry them away as mementoes. Besides these important Cave groups, which are still in a good state of preservation, there are other minor groups in the Aurangabad district, at Ghatot

Kach, Pital Khora, and Rudreswar. In the Bir district there is a cave at Amba Jogai; and about two miles from the town of Dharaseo in the Naldurg district there are two groups of caves, one belonging to the Jain and the other to the Vaishnav sects. A series of old Brahmanical caves are situated at Karusa, in the Bidar district, and at Kalyani in the same district there are several rock excavations, one of the cells having doors of the Egyptian type, widening towards the floor.

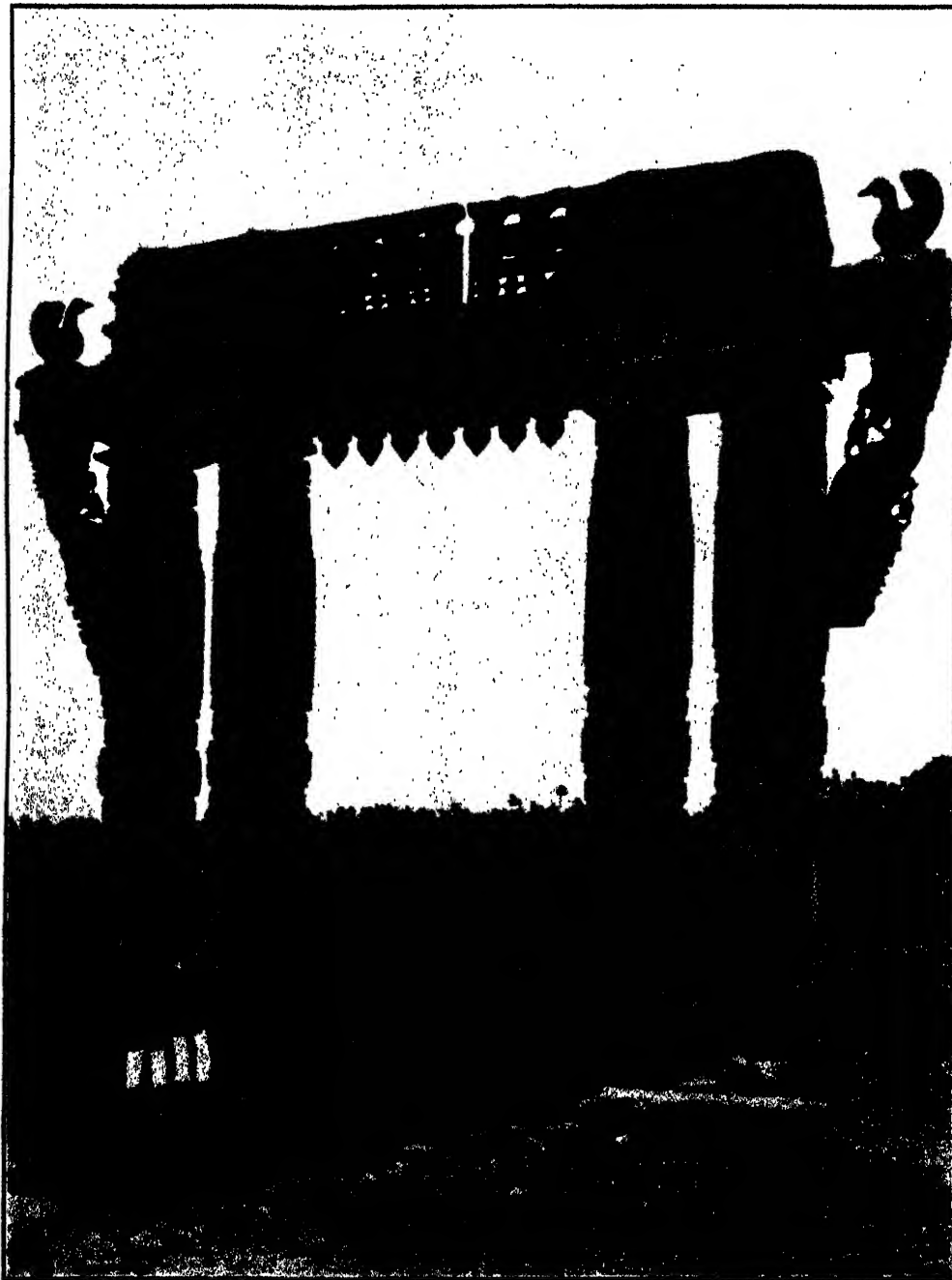
The most famous tombs in the State are those of the Kutubshahi Kings at Golconda, about five miles to the westward of the city of Hyderabad. All the kings of the Kutubshahi, except the last, Abul Hassan, who ended his days as a prisoner in the Dowlatabad fortress, are interred here. The earliest of these tombs was constructed previous to 1543 by the first Kutubshahi King, Sultan Kuli, for himself. They are massive structures of grey granite, oblong or square, surmounted with domes. Some of them are richly decorated with enamelled tiles and other architectural embellishments. Most of them were surrounded by their own separate gardens in former times, but both the tombs and the gardens suffered considerably at the time of Aurangazib's invasion of Golconda. After this they remained in a neglected state for a long time, till the first Sir Salar Jung took steps to preserve and repair the buildings and to replant the gardens. Since then the Nizam's Government has looked carefully after these ancient remains, and much of the wanton destruction which visitors used to inflict has been checked of late.

There are twenty-nine forts, large and small, and among the principal may be mentioned those of Dowlatabad, Raichur, Golconda, Kandhar, Yadgir, Naldurg, Warangal, Nalconda, Nirmal and Bidar. The Dowlatabad fortress is eight miles to the north-west of Aurangabad. It belonged in olden times to Hindu Rajas and was known by the name of Devgad or Deogiri. It has been identified by some as the Tagara of Ptolemy. The Raichur fort is a relic of the ancient Hindu Rajas of Warangal.

Golconda, too, was originally a Hindu fort, erected by the Rajas of Warangal. It came under Mahomedan dominion in 1362. There are a number of old buildings in the

after. Naldrug, again, originally belonged to the Hindus, and came into Mahomedan possession in the time of the Adil Shahi Kings, who greatly strengthened it.

which was founded in the 8th century and is identified with Ptolemy's Korunkula. The place is rich in interesting relics of antiquity. It once contained a



THE GATE OF VICTORY, WARANGAL.

fort, of historical and archæological interest. The fort is now used as the head-quarters of the Golconda Brigade, and is carefully looked

Warangal, also built in Hindu times, is a very ancient fort, circular in construction. It is two miles distant from the town of Warangal,

stupendous Hindu temple, of which only four ruined gateways now remain.

Colonel Nawab MAHOMED ALI BEG, Sir AFSUR-UL-MULK, Bahadur, K.C.I.E., M.V.O., A.D.-C., Commander-in-Chief of the Regular Forces of His Highness the Nizam of Hyderabad. Son of the late Mirza Vilayat Ali Beg, Resaidar, 3rd Cavalry, Hyderabad Contingent. Born at Mominabad, July 22, 1852. Resaidar Mirza Vilayat fought against the rebels during the Indian Mutiny of 1857, the Contingent being employed in the suppression of the revolt. For his bravery he received the Order of Merit and the Order of British India. He was also presented with a Sword of Honour by Sir Hugh Rose, Commanding Central India Field Force. He died in 1866, by his will appointing Mr. (now Sir Charles) Fitzgerald of the 3rd Hyderabad Contingent guardian of his son. In 1867 Nawab Mirza Mahomed Ali Beg joined the 3rd Cavalry of the Hyderabad Contingent and was rapidly promoted to Resaidar. In 1877 he commanded H. H. the Nizam's Escort of 100 men of the Contingent at the Delhi Assemblage of that year. In 1880, on the occasion of Sir Salar Jung's visit to Aurangabad with the Resident Sir Richard Meade, he again commanded the Escort, visiting Daulatabad, Roza and Ellore. On this occasion, in the absence of Major Stewart, the Second-in-Command, when the 3rd and 4th Cavalry, 4th Infantry, and 2nd Battery of the Contingent paraded before the Resident and the Minister, he was given Command of the 3rd Cavalry, the first occasion on which a Native Officer commanded a whole Regiment on parade. In the Afghan War of 1881 he accompanied his Regiment to the front in command of the 3rd Squadron. He was highly commended and received the thanks of Brigadier-General Sir Thomas Wright, and was awarded the Afghan Medal. On his return to Mominabad he was appointed to the Staff of H. H. the Nizam, which necessitated his transfer to Hyderabad. For his distinguished services H. H. the Nizam was pleased to confer upon him in 1884 the title of Afsur-jung; and in 1888 the title of Afsur-ud-Dowla. The distinguished household title of Afsur-ul-Mulk was conferred upon him in 1903. These honours from

His Highness' Government were supplemented by the distinction of Knighthood conferred upon him by the British Government in 1908 when he was made a K.C.I.E. In 1897 Sir Afsur-ul-Mulk was appointed Commander, H. H. the Nizam's Regular Troops, which conferred on him the rank of Commander-in-Chief. He had previously commanded the Golconda Brigade, and two Regiments of the Imperial Service Troops which he had himself raised. He also holds the rank of Major in the British Army. Sir Afsur-ul-Mulk has served on active service on several occasions besides the Afghan War. He was selected to accompany the Durand Mission which fell



Colonel Sir AFSUR-UL-MULK, K.C.I.E.

through. He rendered distinguished service in the Black Mountain Expedition, where he was on the staff of General Sir John McQueen. In 1900 Sir Afsur-ul-Mulk joined the China Expedition, on the staff of General Cummins Commanding the Fourth Brigade, but on arrival at Hongkong was transferred to a more important post on the staff of General Gaselee Commander-in-Chief of the Expeditionary Force. He also took part in the Ponting Fou expedition and joined General Richardson's flying column. On the recommendation of the Inspector-General, Imperial Service Troops, he was selected by the Government of

India to accompany the Indian contingent to England on the occasion of the Coronation of the King-Emperor Edward VII. He received the China medal from the King personally, and the Coronation medal from the hands of the Prince of Wales. On the occasion of the Nizam's Forty years' Jubilee His Highness on parade, with his own hands, tied on Sir Afsur-ul-Mulk's turban a valuable "Serpaich," and presented him with a special Sword of Honour. Sir Afsur-ul-Mulk has attained many distinctions, and as he is in the prime of life many others are before this distinguished soldier who has so wide a field for his activities.

Mr. FARIDONJI JAMSHEDJI, C.I.E., Political Secretary to the Government of His Highness the Nizam of Hyderabad and Private Secretary to His Excellency the Prime Minister of Hyderabad. Eldest son of the late Dr. Jamshedji, also formerly in the service of the Nizam. Born in the Aurungabad District, September 1849. Entered the service of the Hyderabad Government, has since served under six administrations, and has nearly thirty-eight years' continuous service to his credit. This is the longest term of service of any of the Secretaries in His Highness' service. At the time when the Bombay survey system was first introduced into the Nizam's dominions, Mr. Faridoonji Jamshedji was selected to carry out the work, which he effected in the districts of Aurungabad, Bir and Parbhani, embracing 15,000 square miles of territory. He earned great credit from Sir Salar Jung I, the then Prime Minister, by the energy and ability with which he effected the task, and was presented by that nobleman with a gold watch and chain in recognition. Mr. Faridoonji was appointed First Talukdar at Aurungabad in the year 1883, and the following year, on the retirement of General Glasford, he succeeded that officer as Survey and Settlement Commissioner. In 1884, Sir Salar Jung II attained office as Prime Minister, and he appointed Mr. Faridoonji Jamshedji his Private Secretary in the same year. Since then Mr. Faridoonji has continued to hold the same office under the

following Prime Ministers :--Sir Asman Jah Bahadur, K.C.I.E., Sir Vikar-ul-Umra Bahadur, K.C.I.E., Maharaja Sir Kishun Pershad Bahadur, K.C.I.E. The holding of this delicate office under so many Ministers is proof of Mr. Faridoonji Jamshedji's abilities and the remarkable tact and promptitude with which he deals with all matters that come before him. During the régime of Sir Asman Jah Bahadur, Mr. Faridoonji Jamshedji with Nawab Moshin-ul-Mulk was selected to represent the Nizam's Government at the Parliamentary enquiry in connection with the Deccan Mining scandal. The Companionship of the



Mr. FARIDOOANJI JAMSHEDJI, C.I.E.

Indian Empire was conferred upon him by the Government of India in recognition of his good services to the Hyderabad State, and this order he had the honour of receiving at the hands of His Excellency the Viceroy during the Coronation Durbar held at Delhi in 1903. The conferring upon Mr. Faridoonji Jamshedji of the post of Political Secretary to Government in addition to his other duties is the latest indication of His Highness the Nizam's recognition of the many years of good and useful work he has rendered to the State of Hyderabad. Anyone acquainted with Hyderabad politics will readily understand the important nature of

this appointment. His Highness' selection has given much satisfaction to all classes in Hyderabad. During the absence on furlough of Mr. Casson Walker, Mr. Faridoonji has also had charge of the portfolio of railways and mines. Mr. Faridoonji Jamshedji possesses an individuality of character which is very marked, and there is scarcely a visitor to the Deccan capital who has not partaken of his generous hospitality. He is a keen sportsman, and though now in his fifty-sixth year he is still a good rider and better shot, to which the many trophies of tiger and other game that adorn his charming house at Saifabad bear eloquent testimony. He is a widower with one son, Mr. Rustomji Jamshedji, who is now a Deputy Commissioner in Berar, and though quite a young man, has already earned the Kaiser-i-Hind Medal. His two brothers, Messrs. Burzorji Jamshedji and Sohrabji Jamshedji, are both in His Highness' services; the former holds the appointment of First Talukdar, and the latter has recently been appointed Conservator of Forests. Mr. Faridoonji is a gentleman of some literary attainments, and has often contributed to the leading English newspapers in India. He is a life Member of the Royal Asiatic Society of Great Britain and Ireland, and the Cobden Club.

Captain MIRZA KARIM KHAN Nawab Khedive, Jung Bahadur, M.R.C.M. (Edin.), is the Deputy Director of H. H. the Nizam's Civil Medical Department, and the Vice-Principal of the Hyderabad Medical School. He is the fourth and youngest son of Mirza Musa Khan, a gentleman of high birth and position, whose ancestors originally came from Khorasan, in Persia, at the time of the invasion of India by Nadir Shah. But although the founders of this ancient family came from Persia, it was the Nawab of Gazipur Zamaniah who founded the Indian branch, and it was through his efforts that relations between the reigning family of Persia and the British in India were first established. The career of this Nawab, who was named Mirza Mehdy Ali Khan, was a remarkably successful one, and eulogistic mention of his name may be found in the

despatches, minutes, and correspondence of the Marquis of Wellesley. The services of the Nawab were utilised by the old East India Company in 1790 in connection with certain negotiations of a political nature with Persia. He died in the year following, when his eldest son, Mirza M. Hoosain Khan, Dilawar Jung, who was a renowned Persian and Arabic scholar, was employed by the East India Company; and for some time served under Sir John Malcolm, whom he accompanied to Persia on a mission to that court. He died in 1818, and one of his sons, Mirza Musa Khan, the father of the subject of



Capt. MIRZA KARIM KHAN.

this biographical sketch, entered the service of the British Government at the age of 16, filling various posts, until he eventually retired on a handsome pension, and on the invitation of the first Sir Salar Jung he decided to settle down in Hyderabad and to adopt it as his future home. He died in 1869, leaving four sons and three daughters.

Captain Mirza Karim Khan, the youngest of these four sons, joined the Hyderabad Medical School in 1882, after passing a competitive examination with credit. His ability and industry brought him to the notice of Dr. T. Beaumont, then Residency Surgeon at Hyderabad, and on his recommendation he was

sent to England by the Government with a view to the completion of his studies. He first entered University College, London, and later on joined the University at Edinburgh. In 1891 he obtained the degree of M. B. and C. M., and at the end of the year returned to Hyderabad, when he was appointed Health Officer in H. H. the Nizam's service. After filling important Medical posts in the Hyderabad Imperial Service Troops, and subsequently as Inspector of Dispensaries, Civil Medical Department, he was promoted to the post of Principal Medical Officer to His Highness's Regular Troops, and in this position he remained from 1897 to 1908. He was in medical charge of the camps of H. H. the Nizam at the Delhi Durbar, and in 1905 the title of Khan Bahadur Nawab Khedive Jung was bestowed upon him by the Nizam in open Durbar. In 1908 he was promoted to the Deputy Directorship of the Civil Medical Department.

Capt. Karim Khan is a prominent Mason. His wife, who was formerly Miss Bilgrami, a cultured Mahomedan lady, is an excellent English, Persian and Arabic scholar, and was the first Mahomedan lady of birth to pass a University examination. She is the only daughter of Mr. Syed Hussain Bilgrami, Nawab Imad-ul-Mulk Bahadur, C.S.I., the Mahomedan Member of the India Council. By her Capt. Mirza Karim Khan has four children, three daughters and one son.

He has contributed to Medical literature a pamphlet in English on Diabetes, and a treatise in Urdu on Ambulance work.

Dr. MUTYALA GOVINDURAJULU NAIDU, M.B., C.M. (Edin.), Staff Surgeon and P. M. O., Hyderabad Regular Forces. Born at Hyderabad in the year 1868. Educated at Christian College and Medical College, Madras, took his degrees at the University of Edinburgh. He returned to Hyderabad in 1892, joining H. H. The Nizam's service. His first appointment was as Medical Officer, Imperial Service Troops. He was next appointed P. M. O. of all the Nizam's Regular Forces. He also held the post of Lecturer on Medicine at the Hyderabad Medical School, and is Vice-

President of the Hyderabad Medical Association, and a member of the Committee of the Nizam's State Library. In 1898 he was married to Sarojini, daughter of Dr. Aghorenath

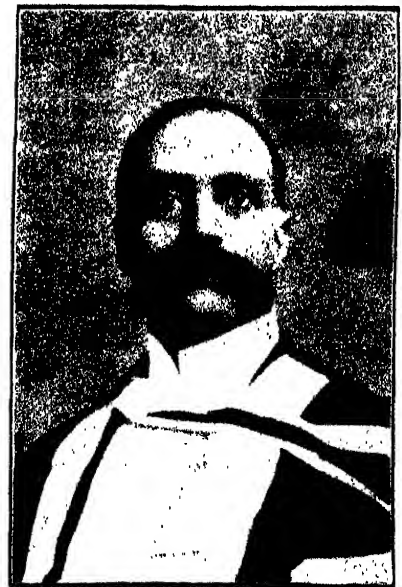


Dr. M. G. NAIDU.

Chatterjee, and has issue, two sons and two daughters. Mrs. Naidu is well known as a poet, and is the author of many poems whose fame has extended throughout India and other countries. She also excels as a platform orator. Dr. Naidu has contributed several papers to the *Lancet* and to the Medical Association. Hyderabad.

Dr. GEORGE NUNDY, M.A. (Cantab), LL.D. (Dub.), Inspector-General of Registration and Stamps, and Member of the Legislative Council of His Highness the Nizam's Government. Born at Futtehpur in the North-West Provinces. 1856. Youngest son of the Rev. Gopeenath Nundy of the American Presbyterian Mission. Educated at La Martinère, Lucknow, and Calcutta. Passed the Entrance Examination of the Calcutta University in 1876 and proceeded to Oxford University, England, to study Law. In the time of Sir Salar Jung I, he obtained a scholarship from the Nizam's Government to qualify in Natural Sciences. Proceeded to Cambridge University where he obtained an

Exhibition, and after graduating there he returned to Hyderabad, where he was appointed Professor of Natural Science at the Hyderabad College and Medical School. Later, he again went to Europe and continued his Law studies at Trinity College, Dublin, obtaining the LL.B. and LL.D. degrees. On his return to India he was appointed an Honorary Assistant Commissioner under the British Government, and was sent by His Highness' Government to Berar to obtain experience in Judicial, Revenue and Administrative work. Having passed the Departmental Examinations in the higher standard, he served as Assistant Commissioner at Amraoti, Akola, and Khamgaon. He also superintended a Government Agricultural Farm at Amraoti. His last appointment in Berar was Assistant Commissioner and Judge of the Small Cause Court, Khamgaon. In 1887 the Hyderabad Government recalled him from Berar and appointed him First Talukdar. He officiated as Deputy Inam Commissioner, Eastern Division, Western Division, and Northern Division successively. He received his pres-



Dr. G. NUNDY, M.A., LL.D.

ent appointment as Inspector-General of Registration and Stamps in 1896.

He is also a Member of the Educational Board and a Municipal Commissioner.

Nawab ZOOLCADER JUNG, Judge, High Court, H. H. the Nizam's Government, Hyderabad. Born at Hyderabad on 20th May 1875. Educated privately at Hyderabad, and subsequently at the Bombay Scottish High School where he remained about five years. Returning to Hyderabad, he studied for a short time at the St. George's Grammar School at that city, whence he passed his Matriculation Examination and proceeded to England in September 1894. He studied at Christ's College, Cambridge, and took his degree in History in 1897. In 1899 he was called to the Bar at the Middle Temple and in the following year returned to Hyderabad, where he was appointed Third City Magistrate in the Capital. He shortly rose to Chief City Magistrate, and in 1907 was appointed a judge of the High Court. His father, the Nawab Agha Mirza Beg Server Jung, Server-ud-Dowla, Server-ul-Mulk, came to Hyderabad in 1870, being introduced to Sir Salar Jung I by General Barrow who was a great supporter of the Mahomedans of Oudh. He was appointed Tutor to the two sons of Sir Salar Jung, and shortly afterwards to H. H. the present Nizam. He retired on the accession of H. H. to the throne, but in 1891 was appointed Chief and Peshi Secretary to the Nizam. He reformed the administration of Hyderabad, and was the framer of the famous "Khanooncha Mubarak" constitution of that state. He retired in 1896, and His Highness, according to his usual generosity, in consideration of his

great and faithful services, graciously allowed his old tutor his full pay Rs. 2,000 per month as pension. On his grandmother's side Nawab Zoolcader Jung is a descendant of the Imperial Family of Delhi. She being the niece of the last Mogul Emperor Bahadur Shah, and on his

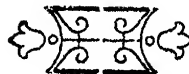


Nawab ZOOLCADER JUNG.

mother's side he is related to the present ruling family of Loharu. His grandfather, Mirza Abbas Beg, was made a Talukdar of Oudh by the British Government for his services during the Mutiny. He was granted an estate. Ashraf Beg, Ashraf-ud-dowla, one of his grand-uncles fought under Lord Lake at

the battle of Koel in the Punjab. Thus it will be seen that his family is one of the foremost in India, and besides the names mentioned above includes such eminent men as the late Sir Syed Ahmed Khan, K.C.S.I., and Moulvie Samiullah Khan, C.M.G., founders of the famous Mahomedan College of Aligarh, and recognised leaders of the Mahomedans of India.

Nawab Zoolcader Jung is descended from a great religious leader of Central Asia, still known as the Sufi Sabz Posh, whose shrine to this day is held sacred in Samarkhand. His great-great-grandfather Mirza Jewan Beg being of an adventurous turn of mind, left Samarkhand and with his brother and two sons, Mirza Akber Beg and Mirza Afzal Beg, came to India in the early part of the nineteenth century A.D., and after serving under different native rulers of Northern India came and settled down in Delhi, where they were at once given high military commands. His brother Mizam Ashraf Beg was given the title of Ashraf-ud-dowla, and another of his grand-uncles, the famous poet, Ghalib, for his great contributions to Persian and Urdu literature, received the title of Najem-ud-dowla, Dabirs-ul-mulk. Nizam Jung. During the Mutiny his grandfather, Mirza Abbas Beg, migrated to Lucknow, where, as already mentioned, for his great services during those trying days he was given the estate of Baragaon in the Sitapur District, which is still held by his family.



Indian Nobility & Gentry.

ATTICKOLLAH Sahib of Dil-kusha Garden, Dacca, is the 2nd son of the late Nawab Asbanollah Khan, K.C.I.E., and a brother of the Hon. Nawab Bahadur Salimullah Khan, K.C.S.I.

He was born at Dacca in the year 1881 and belongs to one of the noblest families in Bengal, his grandfather being Nawab Sir Abdul Ghani, K.C.S.I., who was held in great esteem for his loyalty to the

Mr. Attickollah inherits the amiable qualities of his father and is a gentleman of refined tastes: he is fond of all kind of sports, but particularly of shooting, to which he devotes a good deal of time.

The BANERJEE FAMILY, South Garia, Thana Barnipore, 24-Parganas. This family was founded by Benoyak Banerjee and is of the Brahmin caste. Its early history is obscure and from Benoyak to Ram Ram Banerjee the line is not chronicled. Babu Ram Ram Banerjee was an inhabitant of Baraset in the 24-Parganas. He was the father of Babu Ramdeb Banerjee who left his native district to settle in South Garia. His son, Ram Kishore Banerjee, continued the line and was the father of Babu Gouri Kant Banerjee who had two sons, Babus Raghu Nath and Ramrattan Banerjee. The younger of these two sons, Ramrattan Babu, was an energetic and able character and earned a large fortune in business. He was, moreover, a public-spirited gentleman, and the money he amassed was spent nearly all in the cause of charity and works of public benefit. He spent a considerable sum of money in building the five mile road which has been named after him, the Ramrattan Banerjee's Road, connecting Garia with Rajpur through Kodalia Chaugripota in the Rajpur Municipality. This road which is the only one leading to Calcutta has proved of great advantage to the inhabitants living in its vicinity. His charities were on a large scale and he found the greatest pleasure of his life in distributing food to the poor, and

assisting his neighbours in distress. His helping hand saved thousands of famine-stricken people from starvation and death. His name became a household word for miles around his residence and continues so to the present day. His munificent liberality depleted his property and he died a poor man, leaving two sons, Babus Radhanath Banerjee and Lall Mohon Banerjee. These gentlemen were



Mr. K. ATTICKOLLAH.

British Government during the troublous times of 1857, when he refused to leave Dacca although it was left almost entirely unprotected; by his firm attitude he prevented the mutineers from plundering the town and neighbourhood.



Babu JADU NATH BANERJEE.

as industrious and charitable as their father, in whose footsteps they followed. They made considerable additions to the property, and being devout Hindus devoted themselves largely to the service of their religion. They made a special practice of celebrating all religious rites, particularly the

Doorga Pooja and Doljatra festivals, on which occasions they entertained lavishly, inviting



Babu TARAK NATH BANERJEE.

Pundits and Brahmins from distant parts, distributing alms to the poor, and treating their neighbours to

Jatras (plays) and nautches. This practice is continued in the family to the present day. The two brothers were also very forward in public spirited acts and opened new roads and improved the drainage in the district. They excavated a large tank at Bansra at a cost of Rs. 20,000, for the purpose of supplying good drinking-water to the thousands of boatmen who ply for hire on the salt rivers of the Sunderbuns and to the cultivators dwelling on the banks of these rivers. They also established a school at Garia. These acts have perpetuated their names in the district. Babu Lall Mohon Banerjee in his time was one of the principal Zemindars of the 24-Parganas. He was a popular man upon whom the public relied. His greatest pleasure was to act as peacemaker, settling disputes not only among his own tenants but also among his neighbours. His garden at Bansra was a show place, from which he distributed the produce in fruit lavishly among his neighbours, none of it being placed on the market. At his death he left

three sons, Babus Tarak Nath, Jadu Nath, and Dijendra Nath Banerjee. His brother Radhanath



Babu DIJENDRA NATH BANERJEE.

Banerjee had only one child, a daughter for whom he made ample provision, adopting his brother's



RESIDENCE OF THE BANERJEE FAMILY AT SOUTH GARIA.

son, Dijendra Nath, according to the Hindu custom. These three brothers now live as a joint Hindu family, and manage their ancestral property, to which they have made considerable additions, in common. They are rigid Hindus and have continued the traditions of their ancestors in works of public utility and charity. They have made a free gift of a plot of land and a pucca building for a school in the neighbourhood of their residence, opened new roads in the districts, and established a Post Office in the district. They have also erected a new and fine family residence at a cost of one and-a-half lakhs of rupees. They make a practice of feeding the poor on a large scale two or three times a year and keep up the family celebrations of the Doorga Pooja, Doljatra, and all important Hindu festivals. They have also done much to improve and beautify the village of Garia with a special eye to the sanitary arrangements and prevention of malaria. It is due to their efforts that Garia stands first among the villages of the 24-Parganas, with broad and spacious roads, clean tanks, and good drainage. In the years succeeding 1901 the crops in the district failed several times in succession, through want of good public drainage. In these years the Banerjee family came forward and saved the cultivators from starvation, giving food and money right and left. Babu Tarak Nath Banerjee takes a great interest in agriculture and is a member of the Agricultural Association, Presidency Division, nominated by Government. He is a great grower of various descriptions of rice, potatoes, sugar-cane, etc. At the Calcutta Agricultural Exhibition held in 1907, he exhibited one hundred varieties of fine scented and prolific rice which elicited universal approval. He was also nominated by Government a Jury member of the Session Court, Alipore. Babu Jadu Nath Banerjee was elected President of the Garia Union in 1907, an institution for the settlement of disputes, the disposal of accidental deaths, etc. In this post he has acquitted himself to the satisfaction of the authorities and the public. Petty thefts of fruit and fish which were

formerly of frequent occurrence have now almost disappeared. The new station road which he has opened at his own expense is a monument to his liberality. He has earned the praise of successive District Officers, and his services have been officially recognised by Mr. Bompas, the present District Officer. He has also raised the South Garia M. E. School into an H. E. School. Tarak Nath Babu has a literary turn and is much interested in poetry. He has written a drama "Sadhakmilun" which has been universally admired by the Bengal Pundits for its lofty eloquence. Jadu Nath Babu published two dramas, "Ragha Bijoy" and "Gobardhon Milon," which were very successfully played by Jadab Chundra Banerjee, of the greatest and best known Opera Company in Calcutta. The Pundit Shamaj of Bhatpara, after seeing this play, conferred the title of "Kabiratna" on Jadu Babu, so he is best known as Jadu Nath Kabiratna. He is also the author of a poetical work, "Shesh," which has been greatly praised by many of the Calcutta newspapers, and by many of the Pundits in India. Dijendra Babu, though his income is larger than that of his elder brothers, owing to his being the adopted son of his uncle, looks up to them with respect. His tastes lie in music at which he is an adept. He has also written a drama best known as Shakti Bikash (i.e., The history of Doorga Bari at Benares). Babu Tarak Nath Banerjee is the father of ten children, five sons and five daughters. His sons are Doorga Charan, Mohini Mohan, Nirode Buran, Girija Bhusan and one infant boy. Babu Jadu Nath has one son, Pulin Behari, three years of age, and two daughters. Digendra Nath has one son, Promotha Nath, and four daughters, all young children. Babu Jadu Nath is a member of the Bangiya Sahitya Parishad and the Sahitya Sabha, learned societies established for the cultivation and advancement of Bengali literature.

THE BASTAR STATE—The chronicles of the Bastar State in the Central Provinces of India date from about 850 A.D., the beginning of a line of Nagvanshi Kings who ruled

there from that time till about the middle of the fifteenth century A.D. The Nagvanshi Kings have left many evidences of their rule in the shape of temples at Bersur and inscriptions in the names of Dhara-varshadeo, Somarshadeo, Kanhar-deo, Jayasinhadeo, Narsingdeo, etc. The present Feudatory Chief of Bastar is Raja Rudra Pratap Deo. The ruling family are Somevanshi Kshatriyas and are descended from Prataprudra of the Kaktiya family of Warangal. About the middle of the fifteenth century Prataprudra suffered defeat at the hands of the Mahomedan conquerors of Northern India and was slain in battle.



RAJA RUDRA PRATAP DEO.

His brother Annam fled to Bastar and there founded the modern state of that name. The family now count eighteen generations in Bastar. In modern times the State has lost a good deal of territory. The tracts of Kotpad and Salmee were made over to Jeypur, the tract of Sihaya was made over to Nagpur, of Bhargarh to Bindranawagarh, and the zemindaries of Cherlah Longroo, Rakapulli, and Albaka, went over to the Nizam. Till towards the end of the eighteenth century the State remained independent. At this period, however, family quarrels arose, which gave the Nagpur Government of that time an opportunity to interfere. From this period tribute was exacted by Nagpur from Bastar, and

the Bastar State thus became a tributary of Nagpur, until the latter State lapsed to the British Government, when at the same time Bastar became a British Feudatory. The Bastar State had a population of 306,501 people at the 1901 census, and has an area of 13,002 square miles. The northern half of the State is a plateau at an elevation of 1800 feet with a fairly cool climate. The country is hilly and inhabited by the wild tribe of Gonds, who become less and less civilised towards the north-western extremities of the State. They have little knowledge of agriculture. There are only 2,525 inhabited villages in the State and the languages spoken are Gondee, Telugu, and Hallee, a dialect of Hindi. The income of the State is about three lakhs of rupees, and the tribute payable to Government is assessed at Rs. 20,000. Raja Rudra Pratap Deo, the Chief of Bastar, was born on February 18th, 1885, and succeeded to the *gadi* on July 29th, 1891, on his father's death. He is an enlightened ruler, having been educated at the Rajkumar College, Raipur. He has travelled much in India. Of recent years under his administration the government of the State has much improved. There are now 340 miles of good roads, an efficient Police force of 335 rank and file, and jail accommodation for 148 prisoners. Education is provided for by 57 schools, including an English Middle School, which gave instruction to 4,300 scholars in 1908. There are six Medical Dispensaries in the State under an Assistant Surgeon. Vaccination is enforced. The nearest railway station is Dhamtari on the Bengal-Nagpur Railway, 135 miles over a good road. The capital of the State (population 4,762), Jagdalpur, is connected by telegraph, and is a well laid out town with broad roads and many good buildings, including the Palace, just finished at a cost of about a lakh and-a-half of rupees.

Raja KUNWAR LAXMAN RAO BHONSLAY, of Nagpur, Central Provinces. Born in August of the year 1877. The Kunwar Sahib is the present representative of the old and famous family of the Bhonslay Rajas (Maharattas) of Nagpur, being the second son of the late Raja Bahadur Janoji Sahib Bhonslay, the son by adoption of Her Highness Maharani Darya Bai Sahib, Dowager Rani of the last Bhonslay Raja of Nagpur, Raghaji III. The title of Raja is hereditary in the



Raja KUNWAR LAXMAN RAO BHONSLAY.

family, having been originally conferred on Mudhoji Bhonslay by the Emperor Akbar Shah of Delhi. The family claims descent from the Maharanas of Udaipur, the illustrious "Solar race." The early history of the Nagpur branch of the Bhonslay family is involved in obscurity, though it is certain that they played a prominent part in the subjugation of the country below the Ghats. The first ancestor of whom there is certain mention is Mudhoji Bhonslay, who about the year 1690 A.D., was Patel or headman of Deor.

He had served as a Silladar under Shahaji and Shivaji, the great founders of the Mahratta Empire. Mudhoji was seventh in descent from Rana Bheem Sing, of Ch'tore, who was also the ancestor of Shivaji and of all other branches of the Bhonslay family. The present family are descended from Mudhoji through his eldest son Bapuji, though of the seven sons of Mudhoji, the second, Persoji, was during his lifetime the most distinguished. Persoji served with credit in the wars and on the

return of Shahu Raja from confinement at the Court of Delhi in 1707 A.D., espoused his cause against Tarabai, widow of Shahu Raja's uncle. For his services Shahu Raja conferred on Persoji the title of "Sena Sahib Subha," and gave him command of an army. Persoji died in 1709, and his son and successor Kanhoji rendering himself obnoxious at Court, was deprived of the office of "Sena Sahib Subha" and his command, which was then conferred upon Raghoji Bhonslay, grandson of Bapuji Bhonslay. This appointment took place about the year 1731. Raghoji was a man of talent and energy and established the Mahratta supremacy throughout the country between the Nerbudda and the Godavari rivers and from the Ajanta hills eastward to the sea. He earned the title of Raghoji the Great. Of his four sons, Janoji, Sabaji, Mudhoji and Bimbaji, the eldest and first named succeeded him. Janoji added

some territory to his father's dominions on the Berar side, but his chief claim to respect was his successful internal arrangements and civil administration. He settled what his father had conquered, and gained the reputation of being the best of the Mahratta rulers of the old Nagpur family. His death occurred in the year 1772, he having previously adopted, with the consent of the Peishwa, his nephew Raghoji, son of his brother Mudhoji, as his heir. But before Raghoji with his father Mudhoji could reach

Nagpur, the Government was usurped by Sabaji, the second brother of Janoji, who held it by force until 1775, in which year he fell in battle against his brother Mudhoji. Raghoji then succeeded under the regency of his father, being a minor. Mudhoji died in 1788, and Raghoji, who was then 28 years of age, took over the Government; aided by his brother Chimna Bapu, the most warlike of the family at that time, Raghoji added further territories to his ancestral dominions. He was a popular ruler. In 1806 he died and was succeeded by his only son Persoji who, however, was blind and lame, and therefore incapable of government. A regency was formed under Mudhoji Bhonslay, better known as Appa Sahib, a cousin of Persoji. Persoji's death occurred suddenly in 1817 and it was afterwards proved that he had been murdered by the regent, Appa Sahib. As Persoji left no son, Appa Sahib ascended the throne. Up to his accession Appa Sahib had professed friendship for the British, but thereafter he speedily rendered himself obnoxious. His conduct led to his arrest in May 1818. On the road to Allahabad under escort he managed to escape disguised as a sepoy. He was deposed, and an heir was found in a grandchild of Raghoji through the female line, who was adopted by his grandfather's widows. He took the name of Bhonsla and was recognised as Sena Sahib Subha Raja Raghoji III. During his minority the Nagpur territory was administered by the British Resident acting in his name. He was permitted to assume the government in 1830 and retained it till his death in 1853. He died without issue, and the Nagpur territory was therefore annexed to the British Dominions. The surviving widows of the last Raja adopted as their son and heir Yeshwant Rao Aher Rao, great-grandson of Raghoji II, through the female line. Her Highness Maharani Bankabai Sahiba, widow of Raghoji II, rendered eminent services to the British during the troubled time of 1857, and in reward for these, and the general loyalty of the family, the British Government recognised the adoption of Yeshwant Rao, who afterwards assumed the name of Janoji Bhonsla. In 1861, the title of Raja Bahadur

of Deor, and the lands of Deor, a village in the Satara district of the Bombay Presidency, were conferred upon Raja Janoji and his heirs, whether natural or by adoption, in perpetuity. He also received a political pension of Rs. 12,500 per month. His death occurred in 1881. He left two sons, Raghoji Rao by his second Rani Anjira Bai Sahiba, and Luxman Rao by his third Rani, Kashibai Sahiba. His senior Rani, Laxmi Bai, has only one daughter, Bhagirathi Bai. At the death of the Raja Janoji both sons were minors, aged 9 and 4 years respectively. The elder married Gajra Bai Sahiba, daughter of Pratap Rao Gujar of Satara, and Luxman Rao the younger married in 1891 Annapurnabai Sahiba, daughter of Himmat Bahadur Shreemant Anand Rao Sahib, Gaikwar, C.I.E., natural brother of H's Highness the Gaikwar of Baroda. The Court of Wards managed the estate during the minority of the brothers, and their education was entrusted to European tutors, Mr. H. St. John Kneller and Mr. Oswald; the latter being now Principal of the Rajkumar College, Raipur. In 1898 Kumar Luxman Rao attaining his majority, the estate was partitioned between the two brothers by an arbitrator appointed by the Government. On the partition the estate of Raja Luxman Rao, known as the "Junior Bhonslay Estate," was entrusted to the management of Mr. Maneckjee Byranjee Dadabhoy, Bar-at-Law, of Nagpur. He was succeeded in the management in 1906 by the present Manager, Mr. Narayan Rao Narhar Vyasa. In the estate there are 12 Mokassa, or rent-free villages, 57 Makta or quit-rent villages, and 41 Malguzari or revenue-paying villages. The gross revenue is about Rs. 1,20,000. The Kumar Sahib also enjoys a political pension of Rs. 12,000 per annum. His share of the family jewels is valued at 15 lakhs of rupees. The Kumar Sahib is a good sportsman, athlete, and horseman, a fine specimen of Indian manhood, and very popular with all communities, including the European officers in Nagpur where his residence is situate.

Mr. NARAYAN RAO VYASA, the present Manager of the estate, was first in the Court of Wards as Deputy Manager, and when the estate was returned in 1900 his services were transferred. He was first appointed Deputy Manager, and in 1906 Manager of the Junior Bhonslay Estate.

The BHOWAL RAJ. This important zemindari estate is situate in Eastern Bengal near Dacca. The Raj has a very ancient record and dates from prehistoric times, tradition alone recording its beginnings. It is thus known to have covered a portion of the ancient kingdom of King Sisupala of the Mahabharata. By its position north of the river Buriganga, Bhowal has been identified with Kamakdiya which formed a portion of the Chedi kingdom of those ancient times. Authority for this belief is found in the Tantras. North of Bhowal ancient ruined buildings mark the site of the capital city of King Sisupala of Chedi. This site is now known as Deghalichit. At the fall of the Chedi dynasty tradition asserts that a race of low caste kings ruled in Bhowal. Two of them were Protap Roy and Prosonno Roy, twin brothers, Chandals by caste. Their capital was north-east of Mouza Rajabari and 12 miles from Jaidehpore, where the old ruins are still visible. During the reign of these Chandal kings a new dialect known as Chasa Nagri was the court language. Manuscripts written in this dialect are even now to be found among the Chandals of Bhowal, and some of them, at the present day, keep their accounts in the Chasa Nagri character. Tradition has it that the twin kings above referred to were killed in battle and with them the Chandal dynasty of Bhowal ended. In the anarchical times which followed for many centuries the history of Bhowal disappears. It appears probable that the wars which followed the destruction of the Chandal dynasty destroyed or drove away the population, and the place was laid barren. Bhowal reappears in history during the reign of Bahadur Shah, Governor of Gour. His Dewan was a Hindu, Raja Kali Dass Singha Gajdani, the last of the

ruling kings of the kingdoms of Bais and Arrah, in the Province of Oudh. Bahadur Shah was succeeded by his youngest brother, Jalsuddin Shah, who died in 1563 A.D., leaving one son and three daughters. Dewan Kali Dass Gajdani forsook the Hindu religion and was admitted to Islam under the name of Salaman Khan. He married the youngest daughter of Jelasuddin Shah and became Governor of Gour. On his death and that of his eldest son, his youngest son Isakhan became Governor of Gour. Isakhan was a turbulent character but a man of great ability. He rebelled against the Emperor and ceased to pay tribute. The Emperor sent an expedition against him under the command of Sahabaj Khan. Isakhan was defeated and fled to Chittagong where he established himself by violence, having driven away the last ruling king of Jaugalbari in Mymensingh. Isakhan extended his new kingdom and built forts at various places in the Dacca districts. The Emperor Akbar hearing of his success sent another expedition under the command of Raja Mansingh. Isakhan was again signally defeated by the Imperial troops. The tank which Mansingh excavated to commemorate this victory is still in existence and resorted to by numbers of people. A yearly fair is held at this place which is known as the Jeosh Deghee. Isakhan took refuge in the fort of Egara Sindoo, but was besieged by Mansingh and forced to yield himself prisoner. The Emperor Akbar, in consideration of his great bravery, received Isakhan with honour and gave him a seat on the right of the Masnad attached to the Imperial throne and invested him with the title of Masnandali. He also granted him the jagirs of 22 parganas in Eastern Bengal and Assam. He was also made Governor of Eastern Bengal and Assam, and vested with the powers of a Commander-in-Chief. Among these 22

parganas were Bhowal and Serpur which, with two other parganas. Isakhan on his return gave as a grant to his faithful Ghazi attendants. In this manner the modern area of Bhowal came into existence. The Ghazi Jagirdars of Bhowal settled themselves at Mouza Chaira, near Kaliganj, Bhowal Ghazi securing Bhowal, and the four others the other parganas. Each territory was named after its Jagirdar and in this manner Bhowal which fell to Bhowal Ghazi came by its name. At the time when the land was made



Kumar RONENDRA NARAYAN ROY.

over to the Ghazis there was a large and prosperous Hindu population as is proved by the ruins of temples and pukka buildings. During the rule of the original Ghazi Jagirdars and their descendants, the Hindu population disappeared, being destroyed or driven out by the oppression of the Ghazis. The land was infested with robbers, and gangs of river pirates carried on their operations fearlessly with the connivance of the Ghazis who received a share of their plunder.

These gangs of river pirates carried on their ravages even in British times and the last of them was hanged by John Patson, the then Magistrate of Dacca. The Ghazi Jagirdars of Bhowal lost their power, owing to misrule and debaucheries. The tribute to the Imperial Government at Delhi fell into arrears and the Nawab ordered the zemindari to be confiscated. Doulat Ghazi, the Jagirdar of the time, appealed to the Nawab of Moorshedabad. He engaged Kusadhaj Chakravarty, founder of the present Raj family of Bhowal, an able pleader in the Nawab's Court at Moorshedabad, to plead his cause. Through the abilities of Kusadhaj, Doulat Ghazi was enabled to retain Bhowal. Kusadhaj was appointed permanently as pleader to the Ghazis in the Moorshedabad Court. Some time thereafter Doulat Ghazi appointed Kusadhaj his Dewan. On Kusadhaj's death his son Balaram alias Jandi Nath was appointed Dewan to Bhowal. The debaucheries, extortions and maladministration of Doulat Ghazi turned the ryots to rebellion. They refused to pay rents and the revenues fell into arrears. The ryots then paid their revenues direct to Balaram Rai. This state of affairs caused the Emperor of Delhi, through the Nawab of Dacca, to grant a Jembadari sanad in the names of Balaram Rai and Krishna Ram Ghosh of Gacha. Daulat Ghazi was reduced to the position of a

puppet in the hands of the Jembadars. Balaram Rai and Krishna Ram Ghosh were invested with the title of Chowdhuri by sanad. From this time the Ghazis lost all power and, in the time of Balaram's son, Sree Krishna, a fresh settlement was applied for, and with the Imperial sanction Sree Krishna Rai was confirmed in his share by sanad, dated 6th Jelbajja A.H. 1088. Subsequently there was a private partition among the Jembadars. Sree Krishna Rai

obtained a 7-anna share, Krishna Ram of Gacha, 7 annas, and the Palasona Rai, 2 annas. The Jembadars granted an allowance at first to the Ghazi proprietors, but 30 years later the allowances were withheld, in consequence of which, disturbances ensued, but in the end the Ghazis were defeated and put down. A very few of the descendants of the Ghazis still survive and live as ordinary cultivators in Bhowal, chiefly at Chaira, Jangalia and other villages; they are even now held in great respect. In the year A.D. 1704 the last of the Ghazi descendants named Sultan Ghazi brought a civil suit against Kirbi Narain Rai of the Jaidebpore family and Ram Chandra of the Gacha family to recover his alleged title to, and possession of, Bhowal. By a judgment of the Sadar Nazamut, dated 17th May 1704, the Ghazi lost his claim. With the decision in this case the claim of the Ghazis of Bhowal ended and the Jaidebpore and Gacha proprietors became the undisputed landlords of Bhowal. The judgment is still in the possession of the Bhowal proprietors. From that date the Bhowal property has passed to the descendants of Kusadhaj Rai. On the death of his son, Balaram Rai, the two elder sons of the latter declined to accept the Dewanship, which was accordingly conferred at his own request upon the youngest son, Sree Krishna Rai. It was in Sree Krishna's time that the settlement of the property in the present line took place. Sree Krishna's youngest son, Jaideb Narain Rai Chowdhury, succeeded his father, supplanting his elder brothers who were men of inferior calibre. The Jaidebpore village in Bhowal was named after him. He consolidated the property acquiring the two-anna share (one-eighth share) belonging to the Palasona Ghosh family and thus holding more than half of the property. His management of the estate was

most able and he was in great favour with the settlement officer of the Moghal Government. A sanad with a monthly grant of Rs. 75 was conferred on him by Nawab Jain Hoossein Khan, and a second sanad with a monthly grant of Rs. 100 sicca rupees in consideration of his meritorious services. This sanad is dated 4th Jelkoa A. H. 1126 (A. D. 1708). Jaideb Narain managed the estates for 45 years till his death. In the time of his son, Indra Narain Rai, who succeeded

and made prisoner the 7-anna proprietor, Bejoy Narain, the 9-anna proprietor, escaped at that time. The former was forced to sign a relinquishment of his 7-anna share in favour of the Raja to get his freedom. Bejoy Narain was subsequently captured by the Raja but proved very difficult to intimidate. While in confinement he managed to get hold of the deed of relinquishment and destroyed it before the Raja's face. No intimidator could force Bejoy Narain to relinquish his rights. The Raja ultimately released him

as a tribute to his courage. Some time after one Mr. Wise got possession of a considerable part of the 7-anna share and constant disputes with riots and civil and criminal proceedings arose. Much loss of life was occasioned in the faction fights which took place. In the year 1851, however, all was amicably arranged by the purchase by Golak Narain Rai of Mr. Wise's portion of the 7-anna share amounting to 4 annas $9\frac{1}{2}$ gandas $1\frac{1}{2}$ karanti, for the sum of Rs. 4,46,000 or about one lakh per anna share. This date the 26th of Poush 1258 B.S. (1851 A.D.) is a memorable one in the annals of Bhowal, inasmuch as this transaction brought the share of the Bhowal Raj family to 13 annas $9\frac{1}{2}$ gandas $1\frac{1}{2}$ karanti, and by thus placing an overwhelming share in the hands of the family secured peace for a long period in Bhowal. Golak Narain Rai also took up Mr. Wise's unexpired leases in Bhowal. By the month



Kumar ROBINDRA NARAYAN ROY.

him, the Ghazis again gave trouble, but were defeated by the efforts of Pitambar and Kamdar Rai of the Jaidebpore family. During the troublous times of the eighteenth century the history of Bhowal was marked by the disorders then prevalent. Riots were of frequent occurrence and oppressions of all sorts were practised. The Raja of Rajnagore in the time of Bejoy Narain, taking umbrage at the neglect of the Bhowal Jagirdars to attend his court, sent an armed force

of Sravan 1268 B.S. (1861 A.D.) the whole of the purchase-money was paid off owing to the exertions of his son, Kali Narain Rai, who managed the estates ably during his father's lifetime. Raja Kali Narain Rai did much to consolidate the position of the family. He moved in the society of the European officers, with whom he was very popular. He was a keen sportsman and organised, in company with Europeans, shikar parties to exterminate the wild animals

which infested Bhowal. He started Khedda operations and established a tea estate which, however, were afterwards abandoned. Raja Kali Narain extended his possessions by the purchase of properties near Dacca and adjoining the estate of Bhowal, besides residences in Dacca, Calcutta and Benares. He constructed roads, notably the road joining Jaidebpore with the Dacca-Mymensingh road. These great improvements in communications were all carried out at his own cost. He also bridged the Chalai and Tangi rivers. Raja Kali Narain was forward in all public-spirited work. He established an Entrance School at Jaidebpore and also a Charitable Dispensary and Post Office, and Vernacular Schools at Baria, Bakartpur, and other places in Bhowal. South of the palace of Bhowal he built a rest house for Europeans, known as the Guest House. Raja Kali Narain was loyal to the British Government and was of great assistance in putting down crime. He received the thanks of Government, notably for his services in the arrest and conviction of certain murderers. Among his other purchases for the extension of the property was the acquirement of his Fulbaria Zemindary from Mr. Wise in 1872 A. D. After a long life spent in useful work and the able management of his property Raja Kali Narain Rai breathed his last in the year 1878 A. D., leaving a son, Raja Rajendra Narain Rai, having appointed Baboo Kali Prosonno Ghose (now Rai Bahadur & C. I. E.) of Bharakair in Vikrampur as tutor. Raja Rajendra Narain Rai, when he came of age, left the management of his property in the hands of his formulator. The Raja was a man of fine bearing who preferred to devote his leisure to the cultivation of the arts and sciences. His chief recreation was hunting, and he had access to the society of European officers, with whom he was very popular. He was an adept in en-

gineering and photography and was a frequent contributor to English and vernacular journals. He was charitable and took pleasure in acts of benevolence. He travelled widely, visiting the other native princes of India, and he built a house at Darjeeling where he stayed during the summer months. In his time a partition was made of the 7-anna estate by civil suit which very much consolidated the position of the Jagirdars. He also purchased further interests held by Mr. Wise and thus improved the estate. Raja



KUMAR ROMENDRA NARAYAN ROY.

Rajendra Narain died in the year 1901. He was universally respected and beloved. At his death the estate was taken over by his widow, Rani Bilash Mani Devi, by virtue of a deed of trust executed by the Raja. He left three sons and three daughters; the sons are Ronendra Narayan, Romendra Narayan, and Robindro Narayan. But at this time, there were some troubles. Baboo Kali Prosonno Ghose continued as Chief Manager, but was opposed by the father-in-law

of the eldest Kumar Bahadur who interposed on the pretext that the Raj was encumbered with debts, and with the connivance of certain relations and consent of the Dowager Rani, personal government was established. Baboo Kali Prosonno Ghose then left and his assistants resigned. His services were then dispensed with, and the father-in-law of the eldest Kumar worked as Manager in his stead. Others succeeded him and in the end the eldest Kumar applied to Government to place the estate under the Court of Wards, which was accordingly done in 1904. Under orders of Mr. H. Savage, C.S.I., Member, Board of Revenue, Bengal, charge of the estate was taken from the Rani by Mr. J. T. Rankin, I.C.S., Collector of Dacca. The management was then placed in the hands of Mr. Heard, a Deputy Collector. An application by the Rani for the release of the estate was rejected by Sir Lancelot Hare, who was the senior Member of the Board of Revenue, Bengal, at the time. The dispute would have ended in a lawsuit, and an application was actually filed in the High Court of Calcutta for the release of the estate, when Sir Lancelot Hare brought about a reconciliation between the Rani and the Kumar Bahadurs, and released the estate. Under the Lieutenant-Governor's advice, Rai Jogesh Chander Mittra Bahadur, a retired District and Sessions Judge, was appointed Chief Manager and he took charge

in March 1904. Rai Jogesh managed affairs in a tranquil manner until the sudden death from cholera of the Rani at Calcutta in 1906. In commemoration of the memory of the deceased Rani Belash Mani Devi the Kumars re-established the Entrance School at Jaidebpore. Since 1906 failure of crops lessened collections with the result that the finances were hampered. Disputes as to the management have also again troubled the proprietors. The Dowager Rani, Sattya Bhama Devi,

again brought up the father-in-law of the eldest Kumar Sahib and interfered in the affairs of the Raj. Rai Jogesh Chandra found he could not work harmoniously. The Collector of Dacca pressed the Kumar Bahadurs to appoint a new Manager. On their selection he got the Government to appoint Mr. Jnansankar Sen, P.C.S., M.R.A.S. (London). The Raj now stands greatly rehabilitated. Kumar Ronendra Narayan has been elected by the Landholders' Association to the Eastern Bengal and Assam Legislative Council. The second Kumar Romendra is a keen sportsman. The third Kumar Robindra is giving his attention to the development of the internal resources of the estate. The zamindari extends over Districts Dacca, Mymensing, Backergunj and Tipperah. The capital is at Jaidebpore, 20 miles north of Dacca and half-an-hour by rail. Beautiful jungle tracts exist and there are reserved areas for shikar. A gift of Rs. 25,000 to the Jagannath College has recently been made.

Mr. GANGADHAR RAO MADHO CHITNAVIS, C.I.E., Zemindar and late Member of H. E. the Viceroy's Legislative Council. Born in the year 1863. Educated at the Free Church Institution at Nagpur and Elphinstone College, Bombay. Mr. Chitnavis comes of a family long prominent in the Central Provinces. In pre-British times many members of the Chitnavis family were in the service of the Bhonsla Rajas of the State of Nagpur, to whom they furnished a long line of Chief Secretaries, Ambassadors and Prime Ministers. One in particular, Krishna Rao Madho Chitnavis, was Prime Minister to Raja Raghoji II of Nagpur. Madho Rao Gangadhar Chitnavis, the father of Mr. G. M. Chitnavis, was held in high respect both by Government and the people. Sir Richard Temple wrote of him in 1863: "He was a native gentleman of superior abilities, an Honorary Magistrate and a zealous and useful citizen. He was considered one of the best men in Nagpur." He died in 1885, and Mr. G. M. Chitnavis was accordingly called upon to abandon his

educational career and return to his country of Nagpur. There three years later he was first drawn into public life and took an active part in local public affairs, to which he has continued to devote his abilities ever since. In this year he was appointed President of the District Council of Nagpur, which position he has filled ever since with credit. In 1889 he was appointed an Honorary Magistrate of the 1st class, and for some time he held the position of President of the Loka Sabha, a people's association. He has all along been a prominent member of the committee appointed to manage the several Bhonsla temples, and it is acknowledged that the management of these temples under Mr. Chitnavis' guidance has been all that could be desired. The accounts are well kept in the English manner, the buildings have been maintained in thorough repair, and all possible attention has been paid to improvements. In his capacity of Honorary Magistrate Mr. Chitnavis has earned the confidence of the authorities. He has received approbation for his criminal work in almost all the

criminal reports of the Province. In 1893 Mr. Chitnavis was elected a member of the Legislative Council of His Excellency the Viceroy as representative of the Central Provinces. He held this position till 1895 and was again elected in 1898, serving till the following year. He took part in much important legislation including the Import Duties Bill, the Criminal Procedure Code, and the Central Provinces Tenancy Bill. His work in connection with the latter, in which he was deeply interested, was of particular value. As President of the Nagpur Municipal Committee Mr. Chitnavis has shown himself progressive. His term of office has been characterised by improvements, notably in the lighting of the streets and the upkeep of roads. The sanitary arrangements have been greatly improved and markets have been established for the encourage-



JAIDEPPORE PALACE, BHOWAL RAJ.

WAB SAR JUNE

ment of trade. In addition, a pleasure resort, the Nedhan Park, has been established for the recreation of the public. In recognition of



Mr. G. M. CHITNAVIS, C.I.E.

his legislative work during the first two years Mr. Chitnavis was created a Companion of the Order of the Indian Empire in May 1895, during Lord Elgin's Viceroyalty. In the year 1897 Mr. Chitnavis was honoured by the offer of the office of Minister to Maharaja Holkar, which, however, he found himself unable to accept. In 1898 and 1899 he received the thanks of Government for the great assistance he rendered in connection with plague and famine in Nagpur. He was offered the Presidentship of the Indian National Congress during the session of 1900, but was compelled to decline owing to want of sufficient notice. He has always taken a deep interest in educational matters and has long been President of the Neil High School and a member of the Morris College Council. Also he has been for many years President of the Native General Library, an institution which is fast developing under his fostering care. In recognition of his earnest work in the promotion of education in the Central Provinces his name finds prominent mention in successive educational reports of the Province. In addition Mr. Chit-

navis has bent his energies towards business, and for the last eight years has been Chairman of the Pulgaon Mills, during which time the concern has made great progress. His assistance to Government in the attempt to conciliate agricultural debts in his large estates was cordially acknowledged by Government. In general Mr. Chitnavis has shown comprehensive knowledge of matters affecting public interests, and his work has been recognised by the highest authorities, including Lord Elgin, Sir Antony McDonnell, the late Sir John Woodburn, Sir Charles Lyall, the late Sir Denzil Ibbetson, Sir Andrew Fraser and the Hon'ble Messrs. Miller and Craddock, and others with whom he has come into immediate contact over public affairs. The good feeling between Government officers and the people had increased since Mr. Chitnavis took the lead in public affairs in Nagpur, until it was recently disturbed by some agitators, and he has won the good opinions of both the rulers and ruled. At the Coronation of King Edward VII Mr. Chitnavis was elected to be the representative

of the Central Provinces, an honour which he had earned by years of hard work in the public interest. In 1907 and 1908 Mr. Chitnavis was again appointed a member of His Excellency the Viceroy's Legislative Council.

The late Rai PASHUPATY NATH BOSE, Zemindar. Born of a distinguished Kayastha family in the year 1855. His life was spent in the management of his large ancestral estates in the districts of Gaya, Patna, Lohardagga, 24-Pergunnahs, etc., and he was known as a just and sympathetic landlord. His leisure was spent in works of charity, and the advocacy of the *Swadeshi* cause, of which he was one of the earliest movers and a leader. In support of this movement he acted as Honorary Treasurer of the National Fund established in 1906, and devoted his energies to preaching the advantages of the *Swadeshi* movement, delivering many lectures in Bengali to his countrymen at various public institutions. Although he did not pursue his studies as a youth up to the University stand-

ard, he was a man of considerable natural culture and acquired a thorough knowledge of the English language and literature, and was also a good Bengali and Hindustani scholar. His literary turn enabled him to collect an excellent library, but his studies were chiefly directed to matters of a practical nature, dealing with the causes he had at heart. His advocacy of what he considered his country's interests was carried on in a manner which did not forfeit him the esteem of the authorities, and in his extended circle of friends he numbered many European gentlemen of rank and position. In



The late Rai PASHUPATY NATH BOSE.

his charities he was discerning and profuse. He was continual in his



Mr. AMULYA NATH BOSE.

efforts to aid and raise the poor, and made it a practice to extend help to them by distributions of food and in other ways. At the time of the floods in Calcutta in the year 1900, he lodged in his own house and supplied with food some 300 helpless people and enabled them to tide over the days till the floods subsided.

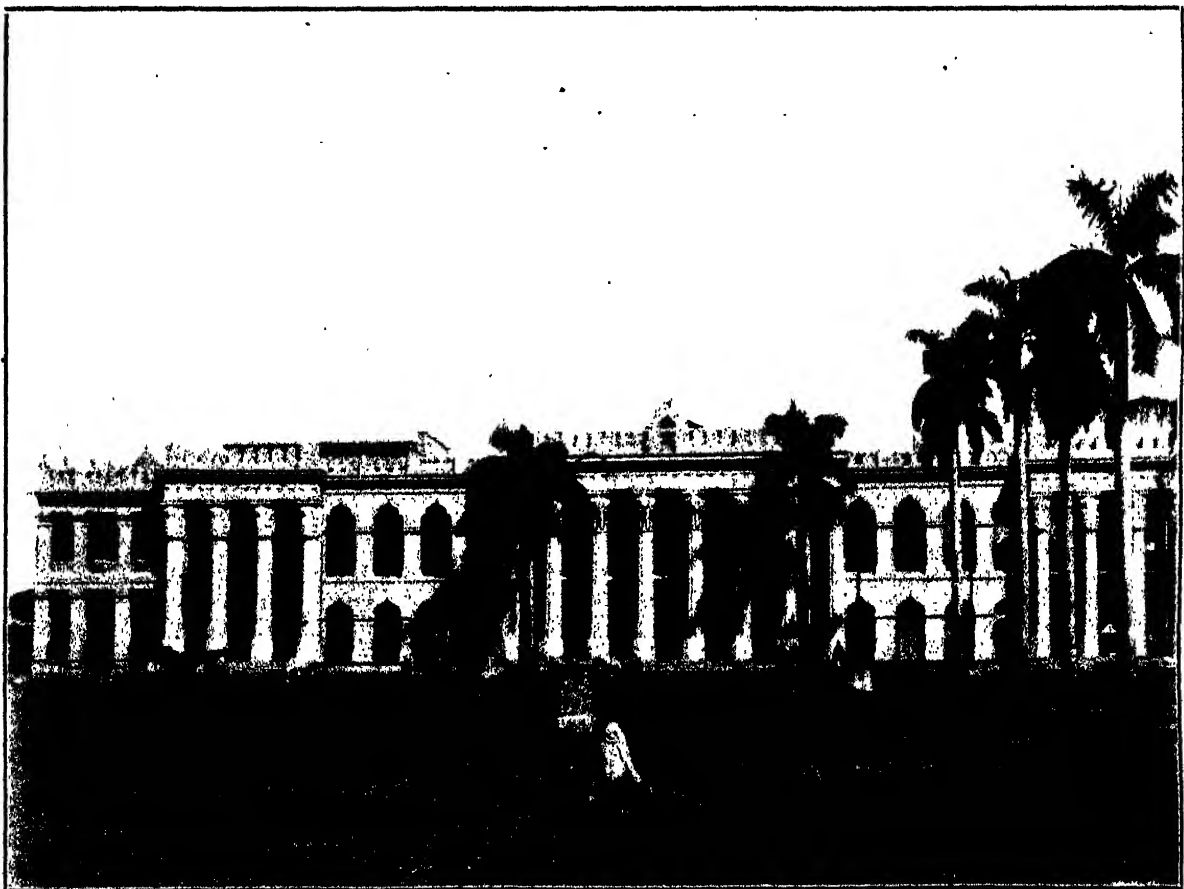
He was appointed one of the Commissioners of the Calcutta Municipal Corporation in the year 1894, and continued as such for a period of 3 years, in which time he not only made various improvements as to roads and lights, but he tried his best to remove the grievances of the inhabitants of those Wards of which he was the Commissioner.

The aim of his life was to impart proper and suitable education to poor and helpless boys. To satisfy this intention he lodged in his own house some 10 or 12 boys every year to give them proper education, and supplied them with the necessities of life. When anyone of them

went out after passing the final examination, his place was filled up by



Mr. AMAR NATH BOSE.



CALCUTTA RESIDENCE OF THE LATE MR. PASHUPATY NATH BOSE.

another outsider. In this way he gave education to helpless boys for a period of nearly 25 years, and many of them are now maintaining themselves and their families by securing suitable appointments.

Now-a-days, among the Kayasthas and Brahmins of Bengal, the question of a daughter's marriage is a very difficult one; and his special delight was in helping those poor fathers who had no other means left open to them to get their daughters married to suitable bridegrooms. Oftentimes he voluntarily bore the whole expenses of marriages of this nature, and there are many instances which are well known to the people of Bengal.

Among many good things which he had performed, his charitable dispensary is to be counted as holding the prominent place. He not only established a good many charitable dispensaries at different Mouzas of his extended Zemindary in the Districts of Gaya, Patna and Lohardagga for the convenience of his tenants, but guided by the best of motives he even ventured to start a charitable dispensary at the premises, No. 25, Bagbazar Street, in the town of Calcutta, in the year 1892, for the interest and convenience of the poor and the helpless, as well as of those who are but men of limited incomes. Thus hundreds of poor people are every day being benefited.

He was a staunch advocate of the Indian National Congress, and a leading member of the British Indian Association, as well as of the Association named Zemindary Panchayet.

He was very social, and his hospitable door was always open to every stranger, rich or poor, and irrespective of creed or colour. He was not only fond of music but he had a natural taste for it. He was justly made a life-member of the famous Association known as "The Indian Sangit Samaj," the chief object of which was the culture of music. He exerted himself greatly to better the condition of the said Samaj in every possible way he could. He would have liked to be always surrounded by expert musicians, three or four of whom

were kept at his house and maintained by him.

He was the founder of the *Palli Samiti* at Bagbazar in Calcutta, the principal aim of which was to remove every sort of want, little or great, of the poor people of the locality in which he lived by pecuniary help; and in this direction he not only spent a large sum of money but also a great deal of energy. In short, he always acted under the influence of the best of motives, and he knew full well how to make the best use of time and money.

He died on the 9th December 1907, at the age of 53, at the residence of his father-in-law at Simultala, in the Sonthal Parganas, to the last continuing his work in the national cause, and deeply mourned by all sections of the Bengali community. He left behind him three sons and five daughters. His eldest son is the present Rai Amar Nath Bose, the second and third are Rai Amulya Nath Bose and Rai Anath Nath Bose.

Maharaja SRIRAM CHANDRA BHUNJ DEO of Mourbhanj. Born at Baripada in December of the year 1871 and educated at the Cuttack College. He assumed the reins of administration as Chief of the Territory of Mourbhanj in the year 1892. The principality is an ancient one, having been founded about 600 years ago by one Joy Singh of the family of the Raja of Jeypur in Rajputana. It is the most northerly of the Feudatory Native States of Orissa and it is also the largest and most important of these States. The Midnapur district bounds Mourbhanj on the north. On the south it is bounded by Balasore and the native State of Nilgiri. On the west by the State of Keonjhar and the Singhbhum District. Mourbhanj has an area of 4,234 square miles and a population of 610,286 souls, of which, according to the census of 1901, 303,283 were males and 307,003 females. The one township, Baripada, contains a population of 5,613. The remaining inhabitants being contained in 3,593 villages, of which the most important are Bahalda and Karanjia, the head-quarters

respectively of the Bamanghati and Panchpir sub-divisions. The Hindus are in a large majority in the population, numbering 507,738, with 26,485 Animists and 3,785 Mahomedans. The bulk of the population are of aboriginal or non-Aryan origin and include 185,000 Sonthals, 60,000 Hos, 56,000 Bhungis, 36,000 Kurmis, 32,000 Bhuiyas, 30,000 Gaurs, 30,000 Hathudis, 25,000 Pans and 15,000 Khandaits. There has been a remarkable increase in population of recent years. The census of 1872 gave the population as only 258,680. In 1881, the enumerated people rose to 385,737, in 1891 to 532,238 and in 1901, 610,385. This was, of course, partly due to the defective returns in the earlier censuses. The country in the State of Mourbhanj is of wildly varied character. The centre of the territory is occupied by a range of hills about 1,000 square miles in area in which are situate numerous rich valleys and dense timber forests. This is at present an almost unexplored region, but road-making with a view of opening it up is in progress. The Moghasani hills, which are situate in the south of the territory, attain a height of 3,824 feet above sea level. Game is abundant in these unsettled regions, the most noteworthy of which are the large herds of elephants which range through the mountain forests. Khedda operations for their capture are carried on at stated periods. Only about one-third of the area of the State is under cultivation, the remainder being either forest or waste land. Much progress, however, is being made in the extension of cultivation, and yearly large tracts of waste land are reclaimed from jungle under leases granted by the State authorities. The population support themselves almost entirely by agriculture, the staple crop being rice. Along the river banks *rabi* crops, peas and pulses are grown, also sugarcane and tobacco. Experimental culture of long-stapled cotton has been recently undertaken. Forest conservancy forms an important part of the State administration, and its necessity is the result of the terrible havoc

made in the forests by an influx of people in recent times. The territory of the State is rich in minerals, and iron ores especially abound; a recent geological survey has disclosed the fact that these are probably the richest and most extensive in India. Iron ores are found all over the State, but in particular in Bamanghati where they are smelted with crude apparatus by native iron workers.

These deposits are to be worked on a large scale and a branch line to Kalimati on the Bengal-Nagpur Railway is proposed for the transport of ore to large steel and iron works which are being erected there. In several localities lime-stone in the shape of tufa or travertine is found, and also red and yellow ochre. There is excellent material for pottery in the clays found beneath the laterite near Baripada. There are auriferous deposits in the Subarna-*rekha* river on the northern confines of the State, and in the Kadkai and Rangni rivers in the Bamanghati subdivisions of the State. In especial there is a track at the head waters of the latter river particularly rich in alluvial gold, and across a range of low hills another area containing placer deposits. Some seventy families gain a livelihood by washing gold in these localities, but their efforts are confined to surface work. Occasional nuggets ranging up to an ounce in weight are found. Mica, but of small size, is found in the Mourbhanj and Bamanghati subdivisions. Agate, flint and jasper occur in profusion in Bamanghati.

Two industries of the State are the rearing of *tussar* cocoons, and the cultivation of lac, which are carried on on a fairly large scale, particularly at Bamanghati. A considerable trade in forest produce such as timber, myrabolams, nux-vomica, honey, resin and fuel also exists, and there are considerable exports of horns and hides, rice, oil seeds and cereals. The

Judge in British India. In criminal cases he is vested with some of the powers of a Session Judge and the full powers of a District Magistrate. There is a Judicial Committee which exercises revisional functions similar to those of a High Court in British India. There is also a Subordinate Judge and two Munsiffs. The former and one Munsiff have the

powers of a first class Magistrate and the second Munsiff those of a second class Magistrate. The subdivisional officers have limited revenue, criminal and civil powers. There is a regular Police force maintained by the State under the control and supervision of the Superintendent of Police (European), also 972 members of the "Paik force," the relics of the ancient yeomanry of Orissa. A jail exists at the capital, Baripada, and two subsidiary jails at the subdivisions. Education has received the careful attention of the administration and has made great progress in the last twenty years. Baripada, the headquarters of the State, has an English High School with an attendance of 137 pupils, and there are 314 schools of various descriptions with a total



Maharaja SRIKAM CHANDRA BHUNJ DEO.

administration of the State follows the British model. The Chief acts as President and is assisted by a Council consisting of four official and two non-official members. Civil and Criminal justice is administered by the State Judge and his assistants. The State Judge in civil cases exercises similar powers to those of a District

attendance of 4,973 scholars in various parts of the territory. Seven Post Offices under the Postal Department have been established, and there are six Dispensaries in the State at which indoor and outdoor patients are treated. The revenue of the Mourbhanj State is 11 lakhs of rupees, the current land revenue being 7 lakhs and the tri-

bute payable to the British Government is Rs. 1,062. Baripada Town, which contains the head-quarters of the State, the residence of the Maharaja, and the seat of his administration, is connected with Rupsa junction on the Bengal-Nagpur Railway by a narrow gauge branch line 32 miles in length which was opened for traffic in 1905. The town is connected by metalled roads with Bahulda and Karangia, the head-quarters of the out-lying subdivisions, and also with the towns of Balasore and Midnapore. The affairs of the State are in a flourishing condition, and the Maharaja is an advanced and enlightened administrator. He was honoured with the title of Maharaja on the occasion of the Proclamation of King Edward VII, Emperor of India, on the 1st January 1903. The family title "Bhanja" ("breaker") is said to have been assumed after the victory obtained over the Chieftain Mayuradhwaj, to which also is ascribed the present name of the State. The emblem of the Chief's family is a peacock, tradition asserting that the family sprang from a peafowl's egg. The peacock was in consequence strictly protected and the killing of this bird was prohibited in the State. Within the territory there are numerous ruins of ancient temples, tanks, etc., especially at Kiching near Adipur, which indicate considerable prosperity in ancient times. One temple erected in the year 1572 by Maharaja Baidyanath Bhunj Deo to Jagannath is still in existence, and is visited by thousands of pilgrims. In former times the State of Mourbhanj was known as "Jhar-khand" on account of its dense and inaccessible forests. In former times, prior to 1803, the Chief of the State was a feudatory of the Mahratta power. In 1829 by a treaty entered into by Raja Jadu Nath Bhunj Deo Bahadur with the

British Government, the former engaged to maintain himself in submission and loyalty to that Government.

The late Babu ANANDA CHUNDRA DAS (Baisnab), of Chingrihatta Road, North Entally, was born in 1803. He came of an old Nama-Sudra family of Kanaichack, Tumluk, in the district of Midnapore. His father, Nimai Chand Mondal, was an agriculturist, and was not at all well-to-do. His son, therefore, owed his progress in life entirely to his own exertions, and



The late Babu ANANDA CHUNDRA DAS.

was in every sense a self-made man. His early life was full of vicissitudes which he met with an undaunted spirit, and he in time became a wealthy man, possessed of properties valued at no less than seven lakhs of rupees. He lost his parents early in life, and shortly after this the homestead in which he resided was swept away by a heavy flood. Of literary education he had very little. At an early age he journeyed to Calcutta, in the hope of making a livelihood in that city; his sole possessions at that time

being a few pice and the clothes in which he stood. But as he was a perfect stranger to the place and destitute of any pecuniary means, he encountered nothing but hardship for some time, and he was forced to beg from door to door for food and shelter. Fortunately, however, at this time he got himself acquainted with a noble-hearted European lady who took him into her confidence and helped him with a sum of Rs. 100 to start a straw-business at Tangra, Entally, which, proving to be of great profit to him, became the real

foundation of his prosperity. Henceforward his career was marked by uniform success. He proved himself a good man of business, and continued to amass wealth until he had attained the position of a big Zemindar, with extensive properties which he managed with great pecuniary advantage to himself.

But although his worldly prospects were of the best, domestic affliction came upon him, and he lost his wife, who had been his devoted help through all the early part of his life, while he was fighting poverty and ill-fortune. This bereavement affected him sorely, and for a time he was inconsolable. But being a man of strong religious convictions, he eventually found comfort, and turned his thoughts to a future world. He became a convert to Baisnabism, for which he had had a strong predilection from

his earliest manhood. He assumed the name of Paramanda Babaji, by which title he was latterly best known, and cutting off all connexion with his family he practically retired from worldly affairs, and henceforth lived the life of an ascetic. He conformed to all the rules of the brotherhood and practised the greatest austerity in the solitude of the Thakurbari which he established on a suitable site, not far distant from his dwelling-house, and in which he had enshrined the images of the deities, Krishnaji and

his consort Radha, before whom he performed his devotions. Here he passed the remainder of his life in meditation and devotional exercises, performing the Rashjatra, the Dolejatra, the Rathajatra, and various other religious ceremonies in accordance with the tenets of Baisnabism, commemorating the advent of the divine incarnation at enormous expense every year. Until, while in communion with his deities, he quietly expired on the 14th day of Pous, 1315, B. S., corresponding to the 29th December 1908.

He left, as his successor and sole heir, one son—the fourth of a family of five, the remainder of whom had pre-deceased him. Owing to his numerous acts of charity and benevolence he had endeared himself to a large number of people, and on his death no less than four thousand of his friends and acquaintances attended to pay their last respects of the dead man. His only surviving son, Rada Nath Das Chowdhuri is proving himself a worthy successor to a worthy father.

Mr. TARA PADA GHOSE,
Zemindar, 14, Puddapukur Street, Kidderpore, Calcutta. Born at Kidderpore on the 19th August 1859; he is the only son of the late Babu Srish Chunder Ghose and Srimati Annada Sundary Dassi, and grandson of the late Babu Mohon Chand Ghose, the founder of the family. Mohon Chand Ghose was born in the year 1801, at Sripore, his native village (Pergana Naihati), District Khulna, and was a Persian scholar. He and his brother Tara Chand commenced life with nothing, but by their talents and energy had succeeded in building up a fortune of several lakhs of rupees. Tara Chand died childless in 1858 at Midnapore, where he was the Deputy Magistrate and Collector, bequeathing his share of the property to his elder brother, Mohon Chand, who had two sons, Srish Chunder and Jogendra Chunder.

His eldest son, Srish Chunder, was one of the first batch of graduates of the Calcutta University. He was a young man of promise, but unfortunately, on account of a misunderstanding with his father, Mohon Chand, rashly ended his own life before he had completed his 24th year. This melancholy event

which occurred in 1860, caused his father, who had already withdrawn from service in the Revenue Board where he was Sheristadar in February 1861, early in the same year, to go on pilgrimage in boats, as the railway was not completed then, to the holy city of Benares with his whole family, where he died broken-hearted in January 1862. The young Tara Pada was thus left to the care of his widowed mother, and under the guardianship of his uncle, the late Babu Jogendra Chunder Ghose, the well-known Positivist. He was educated privately. In 1889 and 1890 Mr. Ghose effected an amicable partition of his half of the ancestral property from that of



Mr. TARA PADA GHOSE.

his uncle Babu Jogendra Chunder. Babu Hem Chunder Bannerjee, Poet, and Government Pleader of the High Court, a mutual friend of both parties, acted as sole arbitrator to their entire satisfaction within the short space of 6 months. Mr. Ghose's zemindary estates are situated within the suburbs of Calcutta and in the Districts of 24-Perganas and Khulna, the bulk of which are the Sunderbun waste land grants under the old rules (99 years settlement). He has proved a good landlord and in time of trouble has always come to the aid of his tenants. He has made many improvements

in his Sunderbun Estate, including the excavation of tanks with masonry ghats, and starting and establishing markets for produce. Water being the first necessity of life, he has relieved not only his own tenants but also thousands of others of the struggling mass of humanity in and around his estates.

Mr. Ghose has devoted considerable attention to study and has made himself by learning and reflection an unique type of an Indian nobleman. He is very liberal in his views, a humanitarian and an advocate of the reformation of India after the European model. In religion he is broad-minded, and believes that the essence of all modern religions is the same. Mr. Ghose married Srimati Giriballa Dassi, eldest daughter of the late Babu Rajendro Nath Ray Choudry, zemindar, Taki Soidpore, District 24-Perganas, in the year 1878. He has three sons, Masters Bankim Chunder, Bimal Chunder, and Nirmol Chunder, and two daughters, Mrs. Benoynee Bose and Miss Shudha Mukhee Ghose. In habits of life and thought, Mr. Ghose is more of an Englishman than a Bengalee. His favourite amusements are riding, driving, and target shooting. He is a great lover of horses. He is an Honorary Magistrate of the independent Bench of Alipore, and a member of the District Board, 24-Perganas, and a member of the B. I. Association, Calcutta.

GIDHOUR. The principality of Gidhour is situated in a hilly and rugged district in the frontier provinces of Behar, between the province of Bengal proper and that of the Upper Provinces of India. Although directly on the line of march of the conquering armies that have so often descended from the North into the fertile plains of Bengal below, it has always enjoyed comparative immunity from attack on account of the difficult nature of its territory. In time of trouble the people of the neighbourhood have always been secure in the hills of Gidhour. In common with most parts of India the history of Gidhour is involved in obscurity for the first millennium of the Christian era. Its annals

extend some eight centuries back and are contemporaneous with the rise and establishment of the present ruling family. Much of the first part of this history is, of course, legendary, but with a strong substratum of fact. These legends have their rise in the historical fact of the conquest of the Chandail kingdom of Mahoba in the Central Provinces by Prithi Raj Chohan, the last Hindu Emperor of Delhi. As a result of this conquest, there was a dispersion of the Chandail chiefs, who, in the manner of the times, set out to conquer new provinces and principalities for themselves. The Chandail estates of Aghori, Barhar Bardi, and Bijegarh were established in the Upper Provinces by these fugitives. The present ruling family of Gidhour are Lunar Rajputs of the Chandail clan, and trace their descent from the Chandails driven out of Mahoba by the Emperor Prithi Raj Chohan, who established themselves in the Upper Provinces as above narrated. A few generations after these events the legendary account states that Bir Bikram Sah, the younger brother of the Chief of Bardi, became much troubled in mind at the dependent position he occupied, considering that he was a burden on the family resources. In this condition he dreamed a dream in which he thought he was directed by the god

Shiva to undertake a pilgrimage to Baidyanath. In his dream he further saw the god Shiva drawing three lines with ashes across his forehead, the three lines forming the "Tripundra," or emblem of the worshippers of Shiva. As a consequence of this dream, he consulted the sages of the palace, and they, recognising the mark of the "Tripundra," advised Bir Bakram to set out as soon as possible on his pilgrimage to Baidyanath. Bir Bakram accordingly undertook the pilgrimage with a following. The

sacred shrine of Baidyanath is adjacent to the extensive tract of country at present known as Gidhour, and at that time ruled by a race of Dusad Rajas. Bir Bakram with the instinct of the conquering race of Rajputs determined that this desirable country should be his, and lost no time in carrying his project into effect. The Dusad Rajas were expelled and Bir Bakram ruled in their stead. The estate generally prospered under its new rulers and its history was fairly uneventful until the reign of Akbar,



II. H. Maharaja Sir RAVENESHWAR PROSAD SINGH, K.C.I.E.

the greatest of the Mogul Emperors of India, at which time Raja Puran Mal of Gidhour, eighth in descent from Bir Bakram, the founder of the Raj, was reckoned one of the most powerful of the Chiefs of Behar. There is evidence still existing of the respect in which he was held in the edifice over the shrine at Baidyanath, an inscription on which ascribes it to Raja Puran Mal's devotion to God, in which inscription the Raja is described as "Nripati" or "king among men." The house of Gidhour stood in

prominence throughout the period of Mahomedan rule in India, of which there is evidence in Royal firmans and letters in the possession of the family. When the rule of the country passed from the Moguls to the British the rulers of Gidhour were found no less active or prominent. In the middle of last century Maharajah Jaimongul Singh of Gidhour distinguished himself by his valuable services in aiding, first, in the suppression of the Santal rebellion of 1854, and secondly, by his staunch support of the British

in the suppression of the far more serious and sanguinary Sepoy Mutiny. These services were gratefully acknowledged by the Government who rewarded the Maharajah substantially, by the grant of a Jagir and in other ways, and bestowed on him the honour of the insignia of the Knighthood of the Star of India, the Maharajah being the first noble in Behar to attain that distinction. Maharajah Sir Jaimongul Singh was an enlightened man of great public spirit, no less distinguished in the cause of peace and progress than he had proved himself in war, as was proved by his magnificent free gift to the East Indian Railway Company of all the lands they required within his state for the chord line of their railway. His life was devoted to the public good, and his charities, especially during the

famine of 1874, were munificent. In the year 1867, the Maharajah Sir Jaimongul finding his powers failing, according to the custom of his family, installed his eldest son Shiva Prosad Singh on the "gadi," and retired into seclusion. In this manner he lived till the year 1881 when he died. Maharajah Shiva Prosad Singh, Bahadur, did not long survive his father, dying four years later in 1885. His memory also is held in great respect as a just ruler of noble character. The present Hon'ble Maharajah Sir Ravenshwar

Prosad Singh, Bahadur, K.C.I.E., of Gidhour, is the son of the late Maharajah Shiva Prosad Singh and the twenty-second of his house in descent from its founder. He was brought up under the experienced eye of his grandfather, the great Maharajah Sir Jaimongul Singh, and had the benefit of supervision by so sincere and worthy a man as his father Maharajah Shiva Prosad. He was carefully trained by competent teachers in Sanskrit and Persian, and early acquired a thorough knowledge of English. Attention was also paid to his religious training, and respect for the traditions of his illustrious ancestry was instilled into him. Trained in this manner the Maharajah is orthodox and staunch to the beliefs and customs of his father, as well as possessing the attainments of an enlightened nobleman. As necessary for a ruler of large estates the Maharajah was educated in the intricacies of zemindari management, and is a good man of business. Great attention was also paid to the physical side of his education, and he was encouraged to devote himself to every kind of sport, and has grown up a fine horseman, a good shot, and an expert swordsman; a worthy descendant of the Chandravanshi, the clan of Rajputs who were perhaps the most worthy and formidable opponents of the last Hindu Kings of Delhi. Maharajah Raveneshwar Prosad Singh was at the death of his father installed on the "gadi" on Friday, the 18th September 1885, and he has not disappointed the great expectations formed of him from his birth and training. The ceremony was performed according to the Rajput custom with Hindu rites. For the next year the Maharajah devoted himself to studying the condition of the estate that had come into his charge, and in the following year he accepted his first public appointment as a member of the District Board Committee of

Monghyr. In March of the same year the house of Gidhour was connected with that of Deera in the Upper Provinces by the marriage of the Maharajah. The connection was a happy one, for the Rajas of Deera were as distinguished for loyalty as the house of Gidhour, and rendered the British good service during the time of the Mutiny in 1857, sheltering refugees and giving them safe escort to Benares. On the 18th August 1886, Sir Rivers Thompson, Lieutenant-Governor of Bengal, performed the ceremony of



THE MAHARAJ KUMAR OF GIDHOUR.

the formal recognition by Government of Raveneshwar Prosad Singh's succession to the hereditary title of Maharajah Bahadur at Bhagulpore. On this occasion the Maharajah Bahadur received his "Khillut," and as a consequence exemption from personal attendance at Civil Courts was also granted to him by the Government. In 1887, the Maharajah was appointed a member of the Central Committee of the Imperial Institute, and also a member of the Local Board of Jamui. The Maharajah distin-

guished himself by zeal and assiduity in attending to the duties of these posts, and attracted the attention of Lord Dufferin then Viceroy and Governor-General of India. In passing Gidhour His Excellency caused his special train to stop at the station, and was pleased to accept an address, to which he replied in kindly terms and asked that the Sirdar's present should be presented to him. The Maharajah Bahadur at this period was a young man of but twenty years of age, but had already given marked proof of his ability to govern his estates and conduct both public and private affairs. In January 1890, the affairs of Gidhour under the Maharajah being much to the satisfaction of the authorities, he was invested with the powers of a Magistrate to try cases singly. In the same year a son and heir was born to the Maharajah amid general rejoicing at Gidhour. It was about this time that the Maharajah, having firmly established himself in the affections of his people, used his influence to introduce social and religious reforms, and turned his attention to improve and beautify the town of Gidhour. What had been a mere collection of huts collected round the walls of the fort and palace of the Maharajah, was gradually converted into a trim little town containing a brick built bazar, a neatly built school, a charitable dispensary and a guest house. A new palace named the "Suknivas,"

was also built by the Maharajah, and the palace was overhauled and refitted in the latest English style with modern furniture, gas, and up-to-date items of luxury. In 1893, the Government gave proof of the confidence which the Maharajah's ability had obtained for him, and nominated him to a seat in the Bengal Legislative Council. He took his seat on the 25th February 1893. In 1894, on the occasion of the amendment of the Bengal Municipal Act of 1884 Bill, he supported the Government.

In the matter of the Land Records Maintenance Bill in January 1895, he supported his colleague, the late Maharajah Sir Luchmeswar Singh of Durbhanga. On the occasion of the Birthday Honours in 1895, Her Majesty the late Queen Empress Victoria created the Maharajah a Knight Commander of the Order of the Indian Empire, a distinction he had fully earned by his services to the State. This honour was much appreciated in Behar. On the 20th November 1895, the insignia of the Order was presented to the Maharajah at Belvedere by Sir Charles Elliott. So high a value was set on the services of the Maharajah that he was appointed to the Bengal Legis-



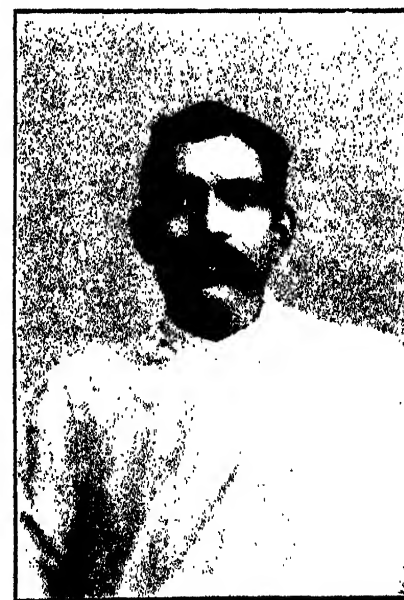
Mr. MAHOMED ESSA.

lative Council for a second, third and fourth term. His efforts were directed on all occasions to practical matters. He endeavoured, though unsuccessfully at the time, to reform the weights and measures of Behar. He drew attention to the great inconvenience suffered by litigants from the practice of subordinate Magistrates reserving judgment for long periods, and action was taken in this by the authorities. In 1900, Gidhour was honoured by a visit from Sir John Woodburn, then Lieutenant-Governor of Bengal. His Honour opened the Charitable Dispensary built by the Maharajah Bahadur to commemorate the Diamond Jubilee of Queen Victoria. In the following

year the Rajput community exhibited their esteem for, and confidence in, the Maharajah by electing him President of the Rajput Moha-Sahab held at Lucknow. In 1902 the Maharajah received another proof of the esteem of Government in being selected to represent Behar at the Coronation of King Edward VII, but was precluded from attendance by local affairs. He, however, attended the Coronation Durbar at Delhi. Sir Andrew Fraser marked his appreciation of the Maharajah's services in the Council by paying the Maharajah Bahadur a complimentary visit at Gidhour in February 1903. On the occasion of the visit of His Royal Highness the Prince of Wales to Calcutta in 1905-06, the Maharajah was elected by the representatives of Bengal as one of the canopy holders to the Prince. On many occasions the Maharajah has entertained the leading people of the land at Gidhour. In 1907, he was favoured by a visit by His Excellency the Viceroy, the Countess of Minto, and the Ladies Elliot and a party from Government House. The Maharajah commemorated this visit, the first that a direct representative of the Sovereign had paid Gidhour, by building a clock tower over the main road of Gidhour, and with the consent of His Excellency, to whom he announced his intention in an address on that occasion, called it the "Minto Tower." In 1906 the Maharajah performed good service as a member of the Committee to revise the Bengal Tenancy Act. The Maharajah has always been distinguished for his generous disposition and charities, and it was a great pleasure to him to be appointed by Her Excellency Lady Minto, one of the patrons of the Minto Fancy Fête in aid of public charities. In all such cases the Maharajah has been ever active, and his donations, public and private, have been generous. The Maharajah worthily upholds in all things the dignity of his ancient race, and is in the best sense a representative of his ancestors, the warrior chiefs of old. His estates are prosperous, he is blest with an heir of promise the Maharajah Kumar, and a brother, the Rao Sahib of Gidhour, who has the respect of the people and relieves the Maharajah of many of the arduous duties incident to his high position.

Mr. MAHOMED ESSA, Zemindar of Balliaghatta in Bengal, eldest son of the late Mr. Mahomed Mohsen. Born in the year 1883 and educated at the Ripon College, Calcutta, he is proficient in the English, Persian, Urdu and Bengali languages. Mr. Mahomed Essa is the descendant of an ancient and honourable family, and his ancestors were the first Mahomedan Zemindars in Calcutta. His maternal grandfather was a man of note, who traced his descent from the Prophet Mahomed. He is at present occupied in managing the estates which he has inherited from his father, and is known as the future Matwali of the large mosque and madrassah at Balliaghatta which adjoins the big dwelling-house built by his grandmother Sowlatunnessa Bibi. This lady also built a madrassah at Mecca in Arabia which is named after her and is known as the madrassah-i-Sowlatia, and also a mosque and madrassah at Bhaslia in the district of the 24-Perganas, Bengal. Mr. Mahomed Essa is married to the second daughter of Shams-ul-ulama Moulyic Ahmed.

Babu SATIS CHANDRA MALLIK, a rich Zemindar of Calcutta, was born on the 16th August 1867,



Babu SATIS CHANDRA MALLIK.

and belongs to the well-known Kulin Kayastha Basu Mallik family

of Pataldanga in the town of Calcutta. He is the only son of the late Babu Sree Gopal Mallik, who made a permanent endowment of Rs. 5,000 annually for a fellowship styled "Sree Gopal Basu Mallik Fellowship" for the encouragement of Vedanta and Sanskrit learning under the management of the University of Calcutta. Babu Satis Chandra has a very charitable disposition and besides occasional donations, he has founded an Institution named after his beloved deceased son "The Jyotish Chunder Basu Mallik Charity Fund" to aid poor students in prosecuting their studies, and for the relief of poor widows, orphans and invalids. A fixed sum of Rs. 300 is spent monthly for this purpose. He has excavated a tank at Mirpur in the District of Nadia for the supply of good drinking water to the inhabitants at a cost of about Rs. 5,000. He has also made a donation of Rs. 12,000 to the National Council of Education, Bengal, to be spent in purchasing the necessary instruments and appliances for the improvement of the Laboratories and Workshops of the Bengal National college and school, one of the laboratories of which is to be named after his father the late Babu Sree Gopal Mallik.

Mr. ANATH NATH MULLICK, the well-known Zemindar and millionaire of Calcutta, comes of one of the most aristocratic families of Bengal esteemed for its antiquity, respectability and importance. The history of this noble family can be traced to so early a time as the tenth century of the Christian era, when its ancestors, who were great merchants and bankers, came from Oudh to the Court of King Adi Sur of Bengal, who granted them a jagir, named Subarnagram, at the confluence of the Brahmaputra and the Meghna, where they settled. They soon dis-

tinguished themselves as a mercantile aristocracy and Subarnagram greatly flourished in trade and commerce. Towards the end of the eleventh century, they incurred the displeasure of the then King of Gour, left Subarnagram and settled in Karjana, a city on the then navi-

Saraswati becoming silted up and unfit for trade, a branch of the family removed to Calcutta, which had just begun to flourish under the English traders, and settled at Burrabazar. From that time forward the family has held a foremost position in Calcutta society.

Among the distinguished members of Mr. Mullick's family the following may be mentioned:—

Shome Bhadra De, one of his earliest ancestors, lived in the reign of King Ballal Sen of Bengal. He was a prominent merchant who removed from Subarnagram to Karjana about the end of the eleventh century. His descendant, Banamali, flourished in the reign of Akbar the Great, Emperor of Delhi, and obtained the title of "Mullick" from the Mahomedan Government. He was a well-known merchant and banker who carried on an extensive business in Bengal and Upper India. He had big zemindaries in the Nadia district, where he excavated a canal which is still known by the name of Mullick's canal. He was greatly distinguished for his charities, and died in 1608. His grandson, Krishnadass, was a man of great benevolence who built a temple at Ballapore on the bank of the river Hooghly and an almshouse at Tribeni. Hariram, a great-grandson of Krishnadass, was the agent of the Hon'ble East India Company at Dacca. Nayanchand, another great-grandson of Krishnadass, was a prominent Zemindar and a flourishing merchant and banker. He constructed a metalled road at Burrabazar in Calcutta, which he made



Mr. A. N. MULLICK.

gable river Khargeswari, near to Burdwan. In course of time Karjana became depopulated; and about the year 1518, the family removed to Saptagram on the river Saraswati. Here they extended their business connections and prospered until the end of the seventeenth century, when the river

over to the Hon'ble East India Company for public use. He built temples and dharamsalas at Benares, Serampore, Mahesh and other places. The great-grandson of Nayanchand by his eldest son was Shyama Charan, popularly known as the Indian Rothschild. He was a man of great influence and importance.

It was at his garden-house, the famous "Seven Tanks Villa," on the Dum-Dum Road, that His late Royal Highness the Duke of Edinburgh, the second son of Her late Majesty the Queen, was entertained by the *Nite* of Bengal, when he visited India in 1869. Nemai Charan Mullick, the second son of Nayanchand Mullick, was the great-grandfather of Mr. Mullick. Nemai Charan was born in 1736 in Calcutta. Besides being one of the richest men of his time, he was an accomplished scholar, well versed in Sanskrit, Bengali, English, Persian and Urdu. He was a great banker and had no less than thirty guddies (branch offices) in various parts of Bengal. Nemai Charan was well known as the builder-up of a great fortune. Though he inherited only about forty lakhs of rupees from his father, he left at the time of his death in November, 1807, upwards of four crores of rupees in cash and Government securities, besides valuable jewellery, important Calcutta properties, big zemindaries, extensive opium and indigo concerns, and large sums due from individuals on banking business. Nemai Charan made his money chiefly by trade, both maritime and inland, and by the "Shat-challisa Loan" during the Mysore wars, when for every sixty rupees lent, the Government granted a note for Rs. 100. Nemai Charan's charity knew no bounds. He built temples and dharamsalas at Brindaban, Ballavpore, Kanchrapara and other places. He went so far as to liberate all civil prisoners who were sent to jail for debts. He also left about five lakhs of rupees for the preservation and maintenance of the religious and charitable institutions founded by him. This money has been formed into a trust whereof Mr. Mullick is one of the trustees. Nemai Charan left eight sons. His second son, Ram Ratan, managed the joint estate after the death of his father, and enjoyed the entire monopoly of the salt trade on behalf of the Hon'ble East India Company. He had also a large business in opium. He was extravagant in his charities and fond of show and ostentation. It was Nemai Charan's fifth son,

Ram Mohan, who constructed the bathing ghât near the Hooghly Bridge, called Mullick's Ghât. Mr. Mullick's grandfather, Swarup Chandra, was the seventh son of Nemai Charan. He was a good scholar and a great merchant with an extensive banking business. He was also a zemindar and landholder. Such also was Mr. Mullick's father, Nityanunda. Both of these gentlemen were well known in Calcutta for their benevolence and charitable dispositions.

Mr. Mullick is a promising scion of this ancient and honourable family. He was born in 1881, but lost his father at an early age. Thereupon the Administrator-General of Bengal took charge of the minor children as well as the vast estate left by Mr. Mullick's father, which he administered till Mr. Mullick attained his majority. Mr. Mullick received his education first at the Metropolitan Institution and then at the Presidency College, Calcutta. He is a well-educated, energetic young man, having a good knowledge of law, practical engineering and surveying. He is a first class amateur photographer, a fine rider, an excellent cyclist, a good all-round athlete, indulging in all kinds of manly sports. He also possesses a good knowledge of music. As a distinguished and influential member of Calcutta society and a gentleman of culture and wealth, Mr. Mullick is connected with many of the important public associations. He is a careful and judicious administrator of his vast estate which he has considerably improved. The Deputy Sanitary Commissioner of Bengal, in one of his inspection reports, spoke very highly of one of Mr. Mullick's properties, describing it as well worth being drawn attention to as a rare instance of public spirit on the part of a landed proprietor. At the early age of twenty-two, Mr. Mullick was elected Chairman of the Municipal Corporation of Manicktala, in which district he owns vast properties, in succession to the old and veteran Chairman, Mr. R. D. Mehta, C.I.E. Mr. Mullick's address is 21, Muk-taram Babu's Street, Calcutta.

The MULICK FAMILY of Chorebagan, Calcutta, is one of the leading Bengali families, whose title dates from the days of the Mogul Empire in India, having been bestowed by the Mogul Government on Jadab Sil, who was head of the family in the thirteenth generation. Though known by the title "Mullick," the family still retain the name of Sil, although it is used only in religious and matrimonial ceremonies. The Mullicks are members of the "Subarnabanik" caste of Hindus, and the traditional business is that of Bankers and Merchants. The present position held by the family has been secured by their great wealth, and their enterprise and public spirited liberality since the beginning of authentic history. They have always been recognised as "Dalapotics" or head of many families belonging to their caste.

The most noted head of the family in recent times was Raja Rajendra Mullick Bahadur, son of Nilmoney Mullick, who died in 1821. Nilmoney Mullick was noted for his widespread charities and was a leading man of his time. He, it was who built the Thakurbari at Chorebagan where, up to the present day, the poor and needy find relief, irrespective of caste or creed. At the time of his death in 1821, his son, afterwards Raja Rajendra Mullick, Bahadur, was but three years of age, and his mother, the widow of Nilmoney Mullick, with her infant son went to live at the residence attached to the Thakurbari at Chorebagan. At this time a suit for the partition of the estate was instituted between the widow and Babu Boistob Das Mullick. Meanwhile the Supreme Court of that day had appointed Mr. James Weir Hogg (afterwards Sir James Weir Hogg, *Bart.*) as guardian to the young Rajendra. He was educated at the Hindu College, where he received a good grounding in both English and Bengali. For Natural History he acquired a great taste and to his artistic sense is due the fine collection of pictures, statues, and other works of art, which grace the halls of the family mansion at Chorebagan, a description of which will be given further on.

On attaining his majority and coming into full possession of his

estate, Rajendra Mullick carried on the charitable work initiated by his father in the most liberal manner. The poor and the helpless were never sent away unrelieved, and he fulfilled his religious obligations in the orthodox way. It was his daily practice to offer his prayers at the Thakurbari before breaking his fast, after which he distributed cooked food to five or six hundred needy people of all creeds and denominations, no distinction in these respects being made. During the famine of 1865-1866 when much distress prevailed throughout Bengal, from five to six thousand starving people had their daily necessities attended to in the courtyards of the Chorebagan mansion. It was this service to suffering humanity that attracted the notice of Government in the first instance, and in 1867 his liberality was rewarded by the bestowal of the title of Rai Bahadur. The ability and generosity with which Rajendra Mullick carried out his work in connection with the famine were fully recognised in a letter from Mr. S. Hogg, the Commissioner of Police, to the Government of Bengal, dealing with the famine, and furnished at the request of the Government. In this report it was pointed out that though leading Bengali gentlemen came forward very readily with similar measures for private famine relief, to Rajendra Mullick was due the credit of having shown the way. Further, he assisted the authorities in dealing with the famine-stricken people who crowded in Calcutta from the districts, causing apprehension of the outbreak of an epidemic. He also generously came forward with much needed accommodation for hospital work among the paupers, placing at the disposal of the Famine Relief Committee several valuable properties at Colootollah, newly built and yielding a monthly

rental of Rs. 1,600. He also gave the house and grounds subsequently known as the Tivoli Garden, for the same purpose. This latter was utilised as a Foundling Asylum, and to this institution Rajendra Mullick contributed the sum of Rs. 100 per mensem, in perpetuity.

This record of services was passed on by the Government of Bengal to the Government of India with the remark that the Lieutenant-Governor has received Mr. Hogg's account of this eminent Native gentleman's voluntary exertions

in the relief of the sufferers from the late famine." Further recognition of his services was made ten years later when Lord Lytton, then Viceroy of India, honoured him with the title of Raja Bahadur. With the *sanad* conferring this honour was presented a fine diamond ring bearing the inscription :— "Presented to Rai Rajendra Mullick Bahadur, with the title of Raja Bahadur, as a personal distinction, in recognition of his high character and benevolence."

Raja Rajendra's studies in Natural History led him to pay attention to Zoology, and he was noted for his collection of birds and beasts. In making this collection he spared neither pains nor expense in bringing together specimens from all parts of the world. Before the Zoological Gardens at Alipore were in existence he had established a menagerie, the first of its kind in Calcutta. He was in correspondence with all the leading Zoological Societies in the world, and frequently sent specimens to the various Zoological collections in Europe, and he in return received from these Societies many varieties of birds and beasts in exchange, together with medals, diplomas, and so forth. He was the first to introduce the Himalayan pheasant into England, which procured for him a medal from the Zoological Society. In 1863, he was elected an Honorary



Kumar NOGENSDRO MULLICK.

and sacrifices in the cause of humanity with the liveliest satisfaction, and feeling confident that such conduct will be highly appreciated by His Excellency in Council, desires me to recommend Babu Raja Rajendra Mullick for some special mark of His Excellency's favour as a suitable acknowledgment of his "enlightened and munificent charity." The outcome of this was the title of "Rai Bahadur" conferred in 1867, "in recognition of the munificence he has displayed

Member of the Acclimatisation Society of Victoria in recognition of the many services rendered by him in the cause of acclimatisation, and in the same year he was appointed a corresponding Member of the Zoological Society of London, by certificate dated May 21st of that year. In 1866, he was requested by the President of the Royal Zoological Society of Antwerp to maintain his connection with that society by the exchange of birds and animals, and in the

following year the Asiatic Society of Bengal returned their warmest thanks to him for the liberal way in which he had responded to their

His eldest son, Kumar Debendra Mullick, who succeeded him, was born on the 15th August 1835, and was educated at the Oriental Semin-

ary. He was proficient in English and Sanskrit, and had an inherited taste for art. As a painter and sculptor he acquired considerable skill, and the oil painting of the late Queen-Empress, which now hangs in the family mansion, is one of his best pictures and is much admired. One of his last works, a group of horses, was exhibited at the Calcutta Exhibition and gained universal praise. He gave considerable attention to public life, was a Justice of the Peace and Honorary Presidency Magistrate, a nominated Municipal Commissioner, a Member of the Council of

liberally to the poor and to every deserving object. An only son Kumar Nogendro Mullick survives him.

The family now consists of three grandsons of the Rajah Rajendra Mullick, namely, the Kumar Nogendro Mullick, son of the late Kumar Debendra Mullick, Kumar Brojendra Mullick, son of the late Kumar Girindra Mullick, and Kumar Ganendro Mullick, son of the late Kumar Surendro Mullick; all of whom are keeping up the charities of the late Rajah Rajendra Mullick Bahadur. Every day about 1,000 poor are fed, without distinction of caste or creed. All the members of the family take considerable interest in art and are mainly concerned in adding to the magnificent collection of pictures and statues that grace the family mansion, which was started by their grandfather, the late Rajah Rajendra. The family mansion at Chorebagan is a veritable art treasure house. Its magnificent marble hall, the material of which has been brought from every part of the world, is a remarkable specimen



KUMAR BROJENDRO MULICK.

call, and trusted that he would continue to take the same lively interest in this branch of science. In 1869, he was appointed a Trustee of the Indian Museum, and in 1875 the Trustees of the Museum appointed him a Member of the Finance and Library Committee. He was largely instrumental in establishing the Zoological Gardens at Alipore, to which he liberally contributed with presents of valuable animals, and in recognition of his services the first house built in the gardens was named after him, "THE MULICK HOUSE."

Rajah Rajendra Mullick was married to the daughter of Babu Rooplal Mullick, the sister of Babu Sham Charan Mullick, late proprietor of the property known as the Seven Tanks, and had issue six sons, Debendra, Mohendra, Girindra, Surendra, Jogendra, and Monindra Mullick. Of these, Mohendra, Girindra, Surendra and Jogendra did not survive their father. The Rajah himself died on the 14th April 1887, after a long and useful career.

the Asiatic Society of Bengal, Member of the Natural History Committee of the same Society, representative of the Asiatic Society for the object of consulting with the Government for the formation of Zoological Gardens, juror for the award of prizes for the Agricultural Exhibition held at Alipore, Vice-President of the S. P. C. A. and Member of the Committee of the British India Association, the District Charitable Society, the Cyclone and Famine Relief Funds, and other institutions of public benefit. He died in the year 1894, after a useful life, throughout which he followed the example of his father and grandfather and gave



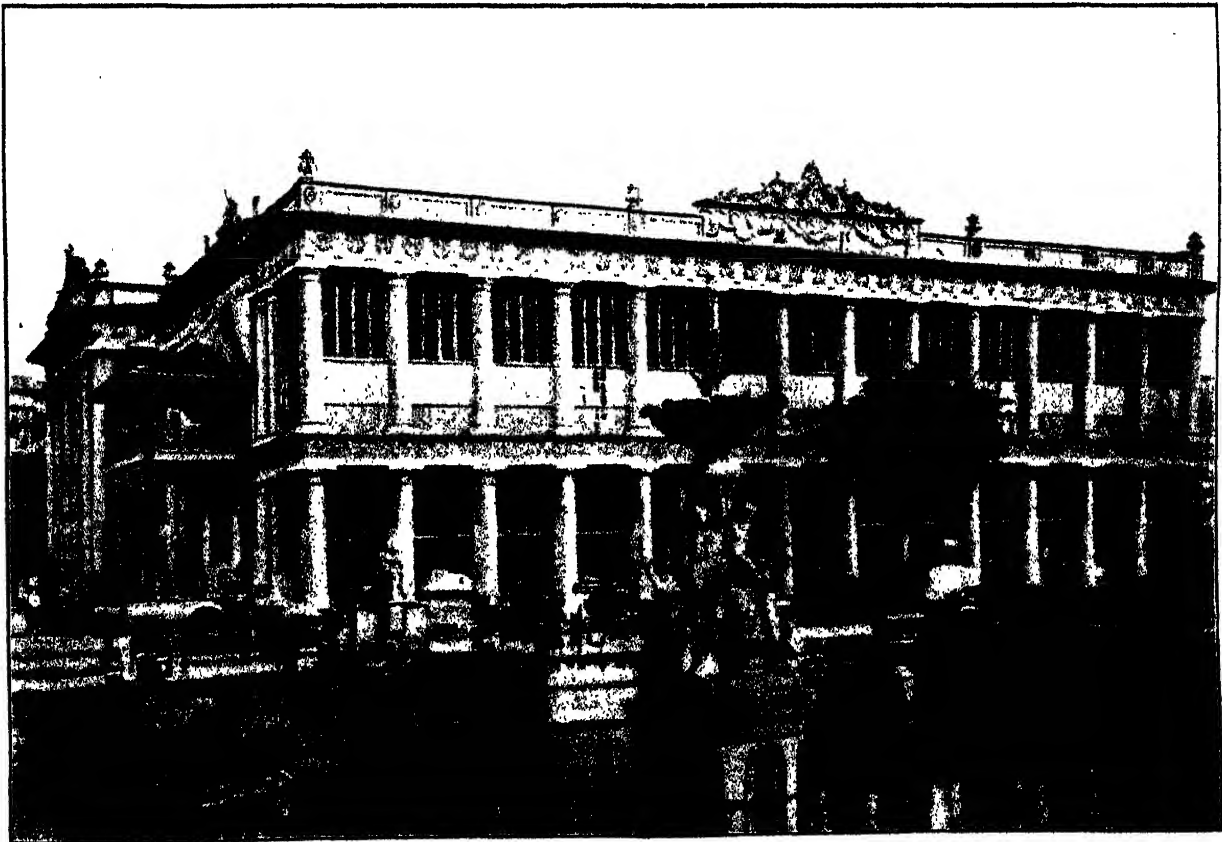
KUMAR GANENDRO MULICK.

of Oriental Architecture. It is surrounded by a high railing, and the grounds are embellished with statues and adorned with aviaries of rare birds. The interior is decorated in lavish style, with gilded ceilings, and the floors are of inlaid marble. Bronze and marble statues from France and Italy adorn the corridors and recesses. The late Rajah Rajendra Mullick spent a fortune in furnishing this house, and making an absolutely unique collection of pictures and statues by eminent artists of every country. Like his distinguished father, the late Kumar Debendra Mullick was also a lover of art, and he too made it the chief object of his life to enrich the Art Gallery of the family mansion. This Art Gallery is, without exaggeration, one of the best in India. The unique art-collection has lately been arranged in proper order, on the occasion of the marriage of a son of Kumar Nogensdro Mullick, grandson of the late Rajah Rajendra Mullick and

the son of the late Kumar Debendra Mullick. As an example of the artistic taste that has been a distinguishing feature of the family for three generations, a few of the objects of art that have been gathered together may be mentioned here. In the compound to the north are to be found a number of marble statues, executed by eminent artists. The effect of the scene is heightened by a marble fountain, representing four figures, Spring, Summer, Autumn and Winter. The first thing that meets the eye on the west lawn is a life-sized marble statue of Michael Angelo, a statue of Venus at the bath, and a full-sized bronze figure of an English cow which was presented by Sir Elijah Impey, Chief Justice of the old Supreme Court of Bengal. On the grand landing are to be found statues of Discobolus, Minerva, Bacchus, Demosthenes, of Una on the Lion, Erena on the Tiger, etc. The collection in the north marble hall includes a beau-

tiful bust of Christ with the crown of thorns, and busts of Napoleon and Wellington. Eastward, statues of Psyche, Venus, and Mercury are the most striking objects, and there is a beautiful bust of the Virgin Mary. In a red marble-walled chamber, is a colossal statue of Her late Majesty the Queen-Empress Victoria in her coronation robes. The courtyard contains four beautiful statues, representing the four Continents; another statue worthy of mention is that of Apollo Belvedere, after the one in the Vatican Palace at Rome. This is supposed to be one of the noblest representations extant of the human form.

Among the oil paintings, one which attracts no little attention is that of the Flight into Egypt, by Pante Jacopoda, called Bassano Burganese (Venetian, 1510-1592). "The Descent from the Cross" is another beautiful Biblical picture, copied from the famous original in the Antwerp Cathedral. "The



THE MULLICKS' FAMILY MANSION AT CHORABAGAN.

Marriage of St. Catherine" by Rubens is another striking painting, which was presented by Lord Northbrook to the Government School of Art, and has since come into the possession of its present owners. The late Kumar Debendro Mullick, who was himself an artist of repute, was the recipient of a beautiful picture, entitled "A Sybil," after Guercino, which now adorns the collection. "The Martyrdom of St. Sebastian," after Guido, "Diana and Endymion" by Le Jenne or Le Suir, "Marriage of St. Catherine" by Lorenzo DiSan Severeno, a painter of the Umbrian school in the 15th century. "The Lord's Supper," after Leonarde Vincent, by Tripolo Giovanni Battista, "Mater Dolorosa" after Raphael, "Charge of the 16th (Queen's Own) Lancers," at the Battle of Aliwal, January 28th, 1846—these and hundreds of other famous pictures are to be seen in the late Rajah Rajendro Mullick's Art Gallery. Kumar Nogendro Mullick, the present head of the family, has performed a praiseworthy task in getting the collection in order, and printing a catalogue of the same. The house, with its unique art-collection which has cost an immense fortune, its most valuable fittings in the shape of rare chandeliers, furniture, etc., and its menagerie, is one of the notable sights of Calcutta. The architectural beauty of this palatial residence is in itself worth the study of an artist. The European visitors to Calcutta, who return home without seeing the late Rajah Rajendro Mullick's palace, have missed one of the greatest sights of the metropolis.

The late Maharaja GOVIND LALL ROY of Rungpur. Born at Calcutta in the year 1854, being the second son of Babu Ishwar Das, a leading merchant of Calcutta. He was son by adoption to Babu Giridhari Lall Roy, and thus became possessed of the family estate and name. The Roy family emigrated to Bengal in

the reign of the Emperor Feroke Shah, to avoid the royal edict published after the death of the Sikh Guru Banda, condemning to death all who professed the religion of Nanak. They in common with several other Kshatriya families avoided the persecution by leaving the district. One of them, Manna Lall Roy, founded the family fortunes at Mahigunge, where the civil station of Rungpur was then located, where he established himself as a Jeweller, which gave the name Tajhat to the quarter he lived in. The family



Late Maharaja GOVIND LALL ROY.

gradually acquired considerable landed property and the big zemindary house of the present day was founded. One Ajab Lall Roy, who, during the aforesaid migration, settled in the Sonthal Parganas, had a son Ratan Lall, who rendered material help to the British Government in bringing the savage Sonthal tribes into law and order. He was rewarded by Government with the settlement of Taluk Manasachandi in Naya Dumka. The two Roy families were united by the marriage of Ratan Lall's

granddaughter, Prankumari, to Dhanapat Roy, grandson of Manna Lall. Dhanapat Roy's son Ram Sunder Rai having deceased leaving a minor son, Upendra Lall, his maternal uncle Babu Giridhari Lall Roy was appointed guardian of the minor and executor of the will. Giridhari Babu at that time held the post of Munsiff and occupied a very responsible position. Upendra Lall dying unmarried in 1860, the Government claimed the estates as ultimate lord. Litigation ensued which was carried to the Privy Council where in 1865, their Lordships gave their decision in favour of Babu Giridhari Lall Roy on the ground that the family was governed by Mitakshara Law and consequently Giridhari Babu was the legal reversionary heir. Ishan Chandra Roy of the Maluchi Roy family, Superintendent of the estate at the time, was instrumental, in a disinterested manner, in fighting the case up to the Privy Council in order to save the estate from the Government. Babu Giridhari Lall Roy having no living issue, adopted the late Maharaja Govind Lall. Being stricken in years the responsibility of managing the great property was too heavy a task for Giridhari Babu, who gave his adopted son a practical English and Bengali education with a view to his early installation into the management of the estates. Govind Lall proved quick, intelligent and sagacious, and at an early age fitted himself for the position. Babu

Giridhari Lall died in the year 1879. The young Govind Lall thus succeeded to the estates at the time when he had just entered the prime of life. He shortly showed evidences of possessing a sterling disposition which elevated him in public esteem. Possessing a sympathetic nature, he set himself to charitable works which made his memory an enduring one. His charities were carried out on a vast scale, nor were they confined to his own district or neighbourhood, but were extended all over

India, and given without distinction of caste or creed. In his native town thousands of people were yearly carried off or incapacitated by the ravages of malaria. To better matters the late Maharaja made a princely gift of 3,500 bighas of land valued at Rs. 60,000, which made possible the excavation of K. D. Ghose's Canal, thus giving the town a proper drainage system and checking the mortality. Facilities for obtaining proper change of air being few for the middle and poorer classes, the Maharaja contributed Rs. 1,10,000 for the construction of the Lowis Jubilee Sanitarium at Darjeeling, which has proved a blessing to thousands of suffering people. He contributed Rs. 100 per month to the Rungpur Bailey Govinda Lall Technical Institute, which thus owes its existence to his munificence. The building for the Training School was the Maharaja's gift and the Tajhat High English School was also established and maintained by him. Another monument of the late Maharaja's liberality was the Cotton Institution of Calcutta. He subscribed Rs. 10,000 towards the establishment of the Marcus Square Recreation Ground, and his donations to famine relief and kindred works were constant and liberal. His charitable donations in all totalled some four and-a-half lakhs of rupees, besides subscriptions to various charitable, religious, medical and technical institutions, of some Rs. 60,000 per annum. His public spirit and private virtues earned for him the esteem of all, both European and Indian, with whom he came in contact, and Government recognised his public services by bestowing on him honour after honour. He was created Rajah in the year 1888 and Rajah Bahadur in 1892. The high distinction of Maharaja was conferred upon him in 1896. His death which occurred in 1897 at the early age of 43 was due

to a lamentable accident in the great earthquake of that year, when he was wounded in emerging from his dismantled palace. The injury proved fatal and his death was a cause of mourning to thousands. His popularity and far-reaching influence may be gauged from the fact that replies to telegraphic messages enquiring after his welfare cost Rs. 750. In appearance the late Maharaja was a typical Kshatriya. He was fond of all manly sports. His marriage with Saraswati Debi, which took place in 1871 (29th



Maharaj KUMAR GOPAL LALL ROY.

January), had issue in the present Maharaj Kumari Hemangini Debi, wife of Babu Uma Prosad Ray Chowdhury of Bhowanipur, Calcutta. The late Maharaja's second wife, Sarat Sundari Debi, outlived him and continued his charities, dying in August 1905. By her he had issue Maharaj Kumar Gopal Lall Roy, Rajkumari Annapurna Debi, married to Babu Hari Chand Malhatra, of the Punjab, and Mrinalini Debi, married to Babu Sailendra Nath Mahata, of Berhampur.

Maharaj Kumar GOPAL LALL ROY, of Rungpur, son of the late Maharaja Govind Lall Roy. Born in August 1887, at Calcutta, and educated at the Hare School. He had the misfortune to lose his father when only ten years of age. At first the management of his ancestral estates devolved upon his mother, the late Maharani Sarat Sundari Debi and her father Babu Ram Krishna Mahata. The Court of Wards, however, took over the management of the estates in 1903, six years after the decease of the late Maharaja, and the young Maharaj Kumar was thereupon sent to the Rajkumar College at Raipur in the Central Provinces. Here he showed signs of the sterling stock from which he came and by his assiduity in his studies and frank and generous bearing he obtained the love and respect of his fellow students and the regard of his Professors, by whom he was held in great esteem, particularly by the Principal Mr. Oswell, who always spoke highly of him and prophesied a useful career for the Maharaj Kumar. His collegiate career was remarkably successful and he carried off several prizes and excellent certificates from the governing body of the College, upon which he received the congratulations of the Honourable Mr. Marindin, at that time Commissioner of the Rajshahi division, and the Hon. Mr. Streetfield, then Collector of

Rungpur. His mother Maharani Sarat Sundari Debi dying in August of the year 1905, the Maharaj Kumar was placed under the guardianship of his uncle Lala Shih Narayan Kapur, whose services were specially lent by the Government of the Punjab on deputation, he being considered the most fit of all the Maharaj Kumar's relations for the charge, which he carried out to the satisfaction of the Government and all concerned. The Maharaj Kumar's sterling character and high reputation to-day

is greatly the result of his uncle Lala Shib Narayan Kapur's excellent formative influence and affectionate care of him in his youth. A tutor was also provided for the young Maharaj Kumar in the person of Mr. E. Candler, B.A., with whom the Maharaj Kumar made the tour of Upper India. In this post Mr. Candler was succeeded by Mr. Mackenzie, who in his turn was relieved by Mr. A. Cormack, M.A., Bar-at-Law, of the Indian Educational Service. These tutors one and all expressed a high opinion of the Maharaj Kumar's intelligence, ability and character. No pains were spared to fit the Maharaj Kumar for the important position he was to occupy, and on his part he applied himself most assiduously to all those branches of knowledge in which it was necessary for him to be proficient. He paid great attention to the study of the Law in all its important branches. Having fitted himself in legal studies, he was given a practical education in zemindari practice and management with Mr. C. H. Pope, Manager of the Rungpur Estate, under the Court of Wards. He went on tour through his estates and took the greatest interest in making himself acquainted with all details of the management, a task which he carried out with great thoroughness and which is standing him in good stead now that he has taken the reins of management into his own hands. While going through this severe but necessary training to render him equal to the task of the great landed proprietor which he was to become, the Maharaj Kumar did not neglect those exercises and recreations which are the graceful accomplishments of the leisured classes. From his boyhood he excelled in all outdoor sports and pastimes. He learned to be an excellent tennis player and also excels at billiards, cricket and football. He is a keen shikari and a good shot. In horsemanship he is extremely proficient and also in cycling, and has taken up motoring with great interest and has made it one of his leading recreations as well for business as for pleasure. His taste for music is keen and he has made himself an expert photographer. The Ma-

haraj Kumar attained his majority in August 1, 1908, and the management of his estates was then made over to him by the Court of Wards. This event was celebrated by a formal dinner given by him, at which many of his European friends, official and non-official, were present. On this occasion Mr. Vas, the Collector of Rungpur, and Mr. Emerson, a former Collector of the same district, spoke in the highest terms of the sterling qualities of the Maharaj Kumar, and Mr. Henniker, Commissioner of the Division, congratulated him warmly on his accession to his estates. The Maharaj Kumar, as might be expected of his ancestry and training, has shown himself a considerate and generous landlord, and like his father, loyal in sentiment and action. He is a man of action rather than of speech and straightforward in all his dealings. During the short time he has held the management of the Rungpur estates, he has shown great decision of character and business tact, which combined with a generous liberality of heart has endeared him to his friends and tenants. His hand has ever been open to the call of distress, and he has contributed generously to famine relief and all popular charitable objects. He was married in 1906 to Radharani Debi, eldest daughter of Babu Kunja Behary Barman, of Bankipur, who by birth, education and training is well fitted to be the consort of the Maharaj Kumar.

The Honourable Rai SITA NATH ROY Bahadur is the youngest of three brothers, the others being Rajah Sree Nath Roy and Babu Janoki Nath Roy, who are the proprietors of the well-known banking firm of Rajah Sree Nath Roy and Brothers. All the brothers have attained considerable distinction in life. Sita Nath was born at Bhagyakul in the District of Dacca on the 30th Falgun in the Indian year 1260, and received his early education at the Dacca Collegiate School and subsequently at the Hindoo School, Calcutta, whence he passed the Entrance Examination. He pursued his studies at the Presidency College where he graduated in Arts and Law. He was enrolled a Vakil of

the High Court of Calcutta but he did not take up practice in earnest. The brothers come of the Coondoo family who are well known and highly respected both in Eastern and Western Bengal. They are better known in Western Bengal as the Roys of Bhagyakul. The Coondoo family is now divided into four branches. Gunga Prasad Roy, the grandfather of the present Roy Brothers, laid the foundation of the present great wealth of the family, which was considerably augmented by the strenuous exertions and enterprise of his sons, notably of the illustrious Guru Prosad Roy and Premchand Roy,



The Hon'ble Rai SITA NATH ROY
BAHADUR.

the uncle and father respectively of the brothers. The family is now one of the richest in the Eastern Province of Bengal. They use their wealth liberally. Their contributions to various works of public utility and charity during the past 40 years amount to about 6 to 7 lakhs of rupees; they have been especially forward in relieving sufferers in the constantly recurring famines. In addition to these large charities the brothers recently, in the name of Raja Sree Nath Roy, made a donation of Rs. 30,000 in establishing an Eye Infirmary at Dacca, and contributed Rs. 15,000 to the Lady Dufferin Zenana

Hospital Fund. This family have been maintaining for some years a Charitable Dispensary at Bhagyakul and a Rest-house where strangers, irrespective of their numbers, are daily offered food and shelter. The family spend large sums of money every year on the maintenance of other semi-religious and charitable institutions, such as the well-known Dacca Saraswat Somaj (Pundits' Institute) which was started by the family some 30 years ago at the sole initiative of Rajah Sree Nath Roy for the diffusion of Sanskrit. They also spend large sums of money in the *Debsheba* at Bhagyakul and Brindaban. They have spent much money on works of public utility, such as the building of temples and motts, and the construction of water-works and the excavation of tanks. About eight years ago the Hon. Rai Sita Nath, in compliance with the wishes of Sir John Woodburn, then Lieutenant-Governor of Bengal, and of Mr. Greer, the then Chairman of the Calcutta Corporation, constructed a very large three-storeyed building on Elgin Road, Calcutta, for the housing of the working classes. This building was fitted with the necessary sanitary arrangements and was intended to serve as an example to others for the construction of sanitary habitations for the poorer classes. This cost him some Rs. 50,000, and is now known as the Greer Model Dwelling. Babu Janoki Nath Roy contributed Rs. 55,000 to the "Victoria Memorial Fund." Rai Sita Nath has lately made a donation of Rs. 5,000 to the Ranchi College Building Fund, and in August 1907 he gave Rs. 20,000 for the purpose of providing filtered water to the people of Munshiganj in the District of Dacca. The Hon. Rai Sita Nath has been untiring and assiduous in his endeavours to serve the Government and the country. Ever since he left College he has been taking an active part in all public movements. With the assistance of a few prominent Indian merchants, notably of his brother Babu Janoki Nath Roy and Babu Chandi Lal Singh, he started in 1887 the Bengal National Chamber of Commerce and has served that institution as Honorary Secretary

ever since. On his representation the Government of Bengal in 1890 appointed a Commission to enquire into the incidence of tolls levied upon boats using the Calcutta and Circular Canals, and he was appointed a member of that Commission. In reviewing the Report, Sir Charles Elliot, then Lieutenant-Governor of Bengal, referred to Rai Sita Nath as "the spokesman of a considerable section of the native mercantile community." The Hon. Rai Sita Nath has served as an Honorary Presidency Magistrate since 1888 and has also served two terms as Member of the Port Trust. He was elected Sheriff of Calcutta in 1898 and has been an elected Member of the Corporation of Calcutta since 1898. He has been noted for his unswerving loyalty to Government and has never joined in any hostile demonstration. He has been a Vice-President of the British Indian Association for two terms and was appointed a Member of the Executive Committee of the Victoria Memorial Fund, a position of great honour and trust. He was also a Member of the Executive Committee of the Famine Relief Fund in 1897 and 1900. At the time of the visit of H. R. H. the Prince and Princess of Wales in 1905, he and Mr. Macleod acted as Joint Honorary Treasurers to the Royal Reception Committee Fund. He has served in many such public capacities, and on some Government Commissions and was lately honoured by Government with appointment as a Member of the Eastern Bengal Legislative Council, in which he has served with great credit and distinction. The title of Rai Bahadur was bestowed upon him at the Delhi Durbar.

Though born at Bhagyakul Babu Janoki Nath Roy and Sita Nath Roy have from their early life lived in Calcutta and have recently constructed a very large and fashionable three-storeyed building for their residence in Calcutta.

Rajah Sree Nath Roy and Brothers are the pioneers of Indian steamer enterprise in Bengal, they being the largest shareholders and sole agents of a Steamer Company called "The East Bengal River Steam Service" which comprises five steamers and eighteen flats and a fully equipped dock.

Raja SUKHMROY ROY Bahadur's Family. The rise of this important princely family of Bengal is bound up with the beginnings of the power of the Honourable East India Company. The first member to attain distinction was Lakshmikanta Dhur who flourished in the middle of the eighteenth century and was notable for the immense wealth he had accumulated. With remarkable foresight he cast in his lot with the fortunes of the British, who were at that time strenuously engaged in building up the beginnings of the British Empire in India. The times were troubled and the warlike operations necessitated by the convulsed state of the country involved large expenditure. Lakshmikanta had rendered conspicuous services to the predecessors of Colonel (afterwards Lord) Clive, but when that great soldier became involved in the first Mahratta War Lakshmikanta came forward with the princely contribution of 9 lakhs of rupees to the East India Company for the furtherance of the military operations. By his death the East India Company lost a staunch and tried friend and one who by action and example had done much to pave the way for their subsequent domination. The people lost a no less staunch friend, for his generosity was on a large scale. In his place, however, the country gained a no less worthy successor in his grandson, Raja Sukhmoy Roy Bahadur, who continued the public and private policy of his grandfather, and in turn proved an unswerving friend to the British authorities, as well as a generous patron to the people of the country. His works of public utility have perpetuated his name. Using the wealth he had inherited from Lakshmikanta Dhur for the public good, he firmly established the family name among the foremost of those devoted to the good of the public. His great work was in connection with the improvement of communications, a great need in those days. With great generosity he made a noble gift of one hundred and fifty thousand rupees for the construction of the Cuttack road, and caravanserais which were built and constructed for the convenience of pilgrims and other travellers resorting to the temple of Juggernath

or Puri. His great services in this and other matters did not escape the attention of the British authorities. During the administration of the Marquis of Hastings he was honoured with the title of Raja Bahadur, and as a further mark of honour a gold medal and sword of rare workmanship were bestowed upon him. Raja Sukhmoy was held in equal esteem in other high quarters of the day. He had previously received the title of Raja Bahadur from the reigning Emperor of Delhi, Shah Allum. The most distinguished honour of maintaining a force of five thousand cavalry in his employ was also accorded to Raja Sukhmoy by Shah Allum. His fame had spread beyond the confines of India and had attracted the attention of the Shah of Persia. That monarch was also pleased to do him honour and through the Board of Council sent to Raja Sukhmoy a *Perwanah* conferring upon him the same title of Raja Bahadur previously granted to him by the British and Mogul authorities of India, to which he thus acquired a triple title. Full of years and honour Raja Sukhmoy Roy Bahadur died leaving behind him five sons. Raja Ram Chandra Roy Bahadur, Raja Krishna Roy Bahadur, Raja Baidya Nath Roy Bahadur, Raja Shiva Chandra Roy Bahadur, and Raja Nrisingha Chandra Roy Bahadur. Of these the eldest Raja Ram Chandra Roy Bahadur died leaving one son only, Raja Rajnarayan Roy Bahadur, who died without issue. Raja Krishna Chandra Roy Bahadur, the second son, also died childless, leaving the dignity of the family to be upheld by Raja Sukhmoy's third son, Raja Baidya Nath Roy Bahadur, who proved a worthy descendant of his great ancestors. Raja Baidya Nath possessed in a remarkable degree the virtues of public spirit, generosity, and charity, which had raised the family to eminence. His loyalty was unquestioned and greatly acceptable to the authorities, who acknowledge his great services to the Government and to the country. He was invested with the title of Raja Bahadur by Lord Amherst, who also accorded him the privilege of wearing the gold medal

and sword of honour presented to his father Raja Sukhmoy Roy Bahadur on all public occasions. The many great works of public utility due to the generosity of Raja Baidya Nath are too numerous to mention. He was open-handed on all occasions which required the services of the rich and well placed. His gifts to the public works of the country left a mark which continues to this day. He gave a handsome donation of Rs. 50,000 to the Hindu College, which considerably increased the usefulness of that meritorious institution. His contribution towards the erection of the Cossipore Gun Foundry Ghat and the road leading from it to Dum-Dum, amounted to Rs. 40,000. To the Native Hospitals he gave Rs. 30,000, and in aid of the funds for Native Female education, the scheme promoted by the late well-known Miss Wilson, his gifts amounted to Rs. 20,000. For the purpose of the construction of the Karamanasha Bridge he contributed Rs. 8,000, and he made a notable gift of Rs. 6,000 to the funds of the Royal Zoological Society of London. Raja Baidya Nath had already qualified himself for membership of this great scientific association, by his munificent contributions to zoological science in the maintenance of a large menagerie, to which the most liberal access was afforded to all interested persons. He accordingly received a highly complimentary note from the Most Noble the Marquis of Lansdowne accompanied by the diploma of the London Zoological Society. In this note were associated the Vice-Presidents of the Society, His Grace the Duke of Somerset, the Right Honourables Lord Auckland, Earl of Darnley, Lord Stanley, M. P., Earl of Egremont and Charles Baring Wall, Esq., M. P. In this note the services to the public of the Raja Bahadur, including his donations to public causes, were set forth in flattering terms. The Zoological Society recognised with pleasure Raja Baidya Nath's desire to be associated with the scientific institutions of Great Britain, and admitted him and his son Kumar Roy Rajkissen to be original members of the Zoological Society of London. At his death

Raja Baidya Nath Roy Bahadur left two sons, Kumar Rajkissen Roy Bahadur and Kumar Kali Kissen Roy Bahadur. The continuance of the family traditions fell to Kumar Roy Bahadur Kali Kissen, the younger son, who gave early indications that the qualities that had led the family to greatness had descended to him. The first Anglo-Vernacular Grant-in-aid School at Paikpara was established by Kumar Kali Kissen who supported it for years. For the building of the North Suburban Hospital at Cossipore he made a donation of Rs. 5,000 and further subscribed a hundred rupees per month towards its upkeep. His virtues and public qualities made Kumar Kali Kissen much esteemed in high quarters. On the occasion of the arrival of His Excellency the Right Honourable Lord Napier of Magdala on the 25th May 1874, Kumar Kali Kissen gave a grand reception in his honour in the same manner that his father, Raja Baidya Nath, had welcomed Lord Combermere on his arrival after the victorious campaign in the Bharatpur War. In connection with this fête there was a great exhibition of fire-works, also a ball and supper. Kumar Kali Kissen had the honour of presenting *pan* and *atar* to His Excellency, the band of Her late Majesty's 62nd Regiment meanwhile playing in welcome. Kumar Kali Kissen was singled out for honour during the administration of Lord Auckland and was presented with a *Khilat* which consisted of distinctive garments and a diamond sirpaitch, or ornament for the turban. He was also, as his father before him, granted the privilege of wearing his grandfather's sword of honour and gold medal on all public occasions. In the year 1879 Kumar Kali Kissen Roy Bahadur died, leaving behind him two sons, Dowlat Chandra Roy and Nagar Nath Roy. The former found pleasure in work, and during his father's lifetime from 1875 to 1879, held an appointment under Government as Sub-Registrar of Deeds and Assurances at Cossipore; his father's death however compelled Dowlat Chandra to resign his post as he was henceforth to be fully occupied in administering the family estates.

The family has been fortunate in having a succession of representatives imbued with the same valuable attributes of public spirit and loyalty to the country and its Government. Dowlat Chandra Roy, as senior representative of this ancient and distinguished family, was no whit behind his predecessors in his unceasing efforts for the public weal. Among his public contributions were Rs. 1,000 to the Bengal Branch of the Lady Dufferin's Fund and Rs. 3,000 through Sri Alfred Croft, former Director of Public Instruction, to the Building fund of the Barangar Victoria Grant-in-Aid School of which he was the principal patron. He endowed a gold medal to be annually awarded to the student who stands first in the F. A. Examination of the Calcutta University. The Calcutta District Charitable Society received an annual donation from him. He regularly subscribed to the Sova Bazar Benevolent Society and was a member of the British Indian Society and the India Club. His private and unrecorded charities were very large. Kumar Dowlat Chandra was no less forward than his ancestors in open display of his loyalty to the British Government. On the 12th December 1890 he gave a great reception, at his residence Rajah's Park, Cossipore, to Major-General Lord Frankfort, then Commanding the Presidency Division. On this occasion a guard of honour of Sepoys in the service of the Kumar received His Lordship with military honours, and the Kumar with his two sons received the General and his staff on their alighting from their carriages. Kumar Dowlat Chandra Roy was accorded by Lord Lansdowne the privilege of wearing the valuable heirlooms of his family, the sword of honour and gold medal of Raja Sukhmoy on all public occasions. Kumar Dowlat Chandra died in the year 1906. Kumar Tejas Chunder Roy died childless. Kumar Harish Chandra Roy who has succeeded Kumar Dowlat Chandra Roy as senior representative of this distinguished family, was born at Rajah's Park, Cossipore. He has proved no less conspicuous than his illustrious predecessors in public spirit, generosity and charity, and possesses in a remarkable degree the virtues of his ancestors. His

charities have been large but unostentatious. He has pursued the Scriptural maxim and "his left hand knoweth not what his right hand doeth." He has earned the right of wearing the gold medal and sword of honour of Raja Sukhmoy. Kumar Harish Chandra has one son, Kumar Jnanendra Nath Roy, who is being trained to follow in the footsteps of his fathers and worthily maintain the honours of the family when the time comes for him to succeed to them.

Khan Bahadur Shaikh WAHIDUDDIN, Premier Rais of Meerut, eldest son and heir of Hafiz Shaikh Abdul Karim, Khan



Khan Bahadur Shaikh WAHIDUDDIN.

Bahadur, C.I.E. Shaikh Wahiduddin possesses the largest zemindari properties situate in the Meerut district. He is also a well-known and prominent Rais in the United Provinces of Agra and Oudh. The Shaikh comes of a distinguished family whose civil and military services have been valuable to the British Government. His grandfather, Sheikh Madar Buksh, served in the first Afghan campaign and was present at the battles of Bharatpur, Kamon and Shekhawati. His uncle, Shaikh Elahi Buksh, was awarded a Khilat for his meritorious services in the first and second Punjab campaigns. He remained loyal during the Indian Mutiny, and

for his services during the period was rewarded by Government with the village of Panchli and was also honoured with the title of Khan Bahadur. His father, Shaikh Hafiz Abdul Karim, also worthily upheld the dignity and public worth of the family. He received the title of Khan Bahadur, and was created a Companion of the Most Eminent Order of the Indian Empire in recognition of services rendered by his ancestors to Government, and also for his own works of public utility. He was honoured by the late Queen-Empress Victoria who presented him with her photograph endorsed with her autograph signature in 1891. The landed possessions of Khan Bahadur Shaikh Wahiduddin comprise 112 villages and several indigo factories situated therein. Also a sugar factory at Panchli and a ginning and oil pressing mill at Khandwa, Central Provinces, which is named after his brother the "Bashir Mills." The Shaikh is deeply interested in agricultural questions. His interest has taken practical shape in the starting of well equipped agricultural farms, and the founding of agricultural banks in his villages. These have been reported on in a highly favourable manner by the Director of Agriculture, United Provinces, in his printed reports to Government. Khan Bahadur Shaikh Wahiduddin has extended his interest to educational matters. He has taken a prominent share in the starting of public institutions and has established a free Primary School, also a free Drawing School and an Arabic Madrassa in Meerut, where he made over a house built by his father at a cost of Rs. 30,000 to the latter institution. He also made a donation of Rs. 21,000 towards the building of a Boarding-house for Mahomedan students in connection with the Meerut College. He has, on many other occasions, made munificent contributions towards similar works of philanthropy and public utility. The Shaikh has been a Director of the Bank of Upper India since the year 1885. He is also a Trustee of the Mahomedan Anglo-Oriental College at Aligarh, and President of the Mahomedan Association, Meerut, and holds similar positions in other Associations. He is very popular

with Europeans owing to his own personal character and the antecedents of his family, and is the only Indian gentleman who has been elected a member of the "Wheeler Club," an exclusively European society.

He received the title of Khan Bahadur on the 25th June 1900.

The late Nawab BAHADUR SYED ASGHAR ALI KHAN DILER JUNG, C.S.I. (Bar-at-Law, M.T. 1869), born 1838, died 23rd December 1896, educated at the Nizamut College, Murshidabad. Eldest son of Nawab Zia-ud-doula Mobariz-ul-Mulk Syed Mohammed



Late Nawab Bahadur SYED ASGHAR ALI KHAN DILER JUNG, C.S.I.

Hosain Khan Bahadur Tahawar Jung; Lineal descendant of H. H. Syed Md. Reza Khan Mozuffer Jung, Khan Khanan, who enjoyed a large stipend and a Jagir in Behar which was resumed by the Government of that day on his death; received titles from the King of Delhi equal to Nawab Nazim of Bengal; appointed by the then Nawab of Bengal, his Naib for Sylhet. In 1765 A. D. appointed by Lord Clive, Naib Nazim of Bengal; President, Board of Revenue; Member of the Committee, Judicial Department, and Sessions Judge, Dewany and Nizamut Adaluts. Family residence, Chitpore,

North of Calcutta. On Asghar Ali Diler Jung, in 1862, the title of Nawab Bahadur was conferred; appointed Honorary Magistrate, Sealdah, 24-Parganas and exempted from personal attendance in Civil Courts; 1864 & 1866, vested and re-vested with 1st Class powers respectively; 1866, first Mahomedan to be created a C.S.I.; and visited Europe; while in London Her Late Majesty was graciously pleased to present the Nawab with a beautiful diamond ring; 1872, returned to India; appointed Honorary Presidency Magistrate and Justice of the Peace, Calcutta; 1875, Member of the Bengal Legislative Council; 1876, Municipal Commissioner, Calcutta; 1877, Fellow of the Calcutta University; 1883, First Mahomedan Sheriff, Calcutta; he was also Honorary Magistrate and Commissioner, Cossipore-Chitpore Municipality. Left four children, the eldest of whom is Nawabzada Syed Hussun Ali Nadir Jung; Residence, Calcutta.

The Hon'ble Nawab SYED MUHAMAD SAHEB, Bahadur, Madras, Member of the Viceroy's Council, son of the late Honourable Mir Humayun Jah Bahadur, C.I.E., and great-grandson of Nawab Mir Asadulla Khan Bahadur, Jagirdar of Chetput and Dewan of Nawab Safdar Ali Khan Bahadur. The Nawab is a descendant of the Prophet of Islam and 59th in descent, and his family is closely related to that of the celebrated Hyder Ali, the successful soldier who raised himself to the throne of Mysore. The Honourable Mir Humayun Jah Bahadur, father of the present Nawab, was a son of the late Shahzadi Shahrukh Begum, daughter of Prince Sultan Yaseen, fourth son of Tippu Sultan. Nawab Mir Humayun Jah was elected by the non-official members of the Local Council to represent them on the Supreme Legislative Council in 1893 when the right of election was first conceded. He, however, died before taking his seat. His Excellency Lord Wenlock at a meeting of the Madras Legislative Council referred to the deceased nobleman in glowing terms, and expressed the sorrow of himself and his colleagues at his untimely

death, and at a later meeting again made reference to the subject in the same high terms in quoting a telegram received from the Viceroy lamenting his death. His son set himself to follow in his father's footsteps, and gained the esteem of all by his ability and high character. In 1896 he was selected by H. E. Sir Arthur Havelock, then Governor of Madras, to fill the important position of Sheriff of Madras, and was the first Mahomedan Sheriff of the city. At the Diamond Jubilee in 1897 he was honoured with the title of Nawab. In the year 1900 he was appointed to the Madras Legislative Council by Sir Arthur Havelock, and in 1902 re-



Hon. Nawab SYED MUHAMAD SAHEB.

nominated by Lord Amthill, his successor in the office of Governor of Madras. He was an invited guest at the Delhi Durbar in January 1903. In October of the same year he obtained the honour of election to the Supreme Legislative Council to represent the Madras Presidency. The Nawab has been a strenuous worker throughout his career. He was active in Council in the matter of the Official Secrets, the Universities, the Co-operative Credit Societies, and the University Validation Bills. His speeches in the Council meeting held at Simla in June 1908 for passing the Explosives Bill and the Incitement to Murders Bill show the complete grasp he has of

the affairs of the country and of the crisis through which India is passing. He joined the Indian National Congress in 1894, and has supported the movement ever since. When the Congress held its session at Madras in 1903, he was elected Chairman of the Reception Committee. He is President of the Madras Mahajana Sabha and of the Mahomedan Educational Association of Southern India, and has been active in promoting good feeling between the Mahomedan and Hindu communities.

The MAHISHADAL RAJ. The bulk of the land comprised within this Raj is situated in the Sub-Division of Tamluk, in the Midnapore District, a compact area of about 33 miles in length and 22 miles in breadth, supporting a population of about 150,000, distributed in 517 villages and 56,389 holdings. The produce of this populous little territory consists of paddy, rice, jute, sugarcane and palm-juice, molasses together with vegetables, fruit, and betel leaves. There are marts or hats at Geonkhali, Banka, Gopalganga, Radhaganja, Tamluk, and several other places. The income of the Raj is 7 lakhs of rupees, and the Government Revenue and cesses amount to nearly three and half lakhs of rupees. The prevailing rate of rental in the Raj is very low, and compares favourably with other districts in Bengal. The Rajas of Mahishadal have never shown themselves avaricious, and have not enhanced the rents of the tenants in accordance with the rise in the price of staple food grains in the district. Thus the rents of holdings, as fixed at a time when paddy was selling at eight annas a maund, are still maintained at the same rate, although, meanwhile, the price of paddy has more than quadrupled. The tenants of the Raj are therefore in far easier circumstances, and are more contented than those in neighbouring districts. Then again, the Raj being held in Khas, without the intervention of Patnidars and other intermediaries, the increase in the material prosperity of the Mahishadal tenantry has been continuous, and subjected to no drastic fluctuations. And yet the Raj is in a good financial position, with money to devote to works of public utility. It is in the enviable position of being one of the most solvent of the big zemindaries of Bengal.

The founder of the Raj Family, Raja Janardan Upadhyaya, a high class Brahmin, of the Saroria branch of the Kanouj Brahmins, migrated from the North-West Provinces and settled in Bengal in 1600, the memorable year in which the Charter of the East India Company was granted. The present head of the family, Raja Sati Prosad Garga, and his brother, Gopal Sati Garga, are fifteenth in descent, the genealogy of the family being as follows:—First came Raja Janardan Upadhyaya who settled in the Province of Bengal in the year 1600. He was followed in succession by Raja Durjan Upadhyaya, Raja Ram Saran Upadhyaya, Raja Raja Ram Upadhyaya, Raja Sukh Lal Upadhyaya, and Raja Ananda Lal Upadhyaya. Here occurred a break, as the last named died without issue, and his widow, Rani Janaki, adopted a son named Mati Lal. But the adoption was contested, and eventually the estate passed to the Raja Guru Prosad Garga as the next-of-kin to Ananda Lal Upadhyaya. Raja Guru Prosad was followed in succession by Raja Raghuman Garga, Raja Bhavani Prosad Garga, Raja Kali Prosad Garga, Raja Jagannath Garga, Raja Ram Nath Garga, and Raja Lachman Prosad Garga. The latter left three sons, Raja Iswari Prosad, Raja Jyoti Prosad, and Kumar Ram Prosad; the two latter died without leaving any issue. Raja Iswari Prosad died in 1888, leaving two sons, Raja Sati Prosad and Kumar Gopal Prosad, and a daughter. The Gargas, like the Upadhyays, came from the North-West Provinces, their original habitation having been the village of Ghurontha, in the district of Banda. They brought with them their laws and customs into the land of their adoption. The two sons have received an excellent training to fit them for the positions they now hold, while the daughter, Kumari Bibhavati, is married to the Dewan Sahib of the Raj, Babu Probhet Chandra Dobe, who thus becomes the brother-in-law of the head of the family, with, as executive head of the Raj estates, full control of the collection rents.

The Raj is still maintaining the twelve Thakurbatis founded by the Upadhyayas, as well as the Hospital and Charitable Dispensary, and the High English School, established in the early sixties by Raja Lachman Prosad Garga, the grandfather of the

present Raja. Raja Lachman Prosad Garga was the pioneer of English education in the district, for which he received a Certificate of Honour from the Government. Both the above mentioned institutions are in a flourishing condition and are doing useful work. The charities of the Raj are not confined to religious, educational, and medical institutions alone, but the Hindu religious festivals are, of course, celebrated with befitting pomp. Of these, the great Car festival is worthy of special mention. It is next in importance to that held at Puri. The car itself is a wonderful piece of workmanship, and on the occasion of the festival a mela is held, extending over eight days and attended by about 100,000 people. Works of public utility, too, have always found generous patrons in the Mahishadal Raj family.

The title of Raja was hereditary in the family, being based on the Sanad granted by the Mogul Emperor of Delhi. For thirteen generations the heads of the Mahishadal family bore the title of Raja. But the Sanad was lost in the confusion that prevailed when, under cover of a decree of the Calcutta Supreme Court, the palace of Mahishadal was taken possession of by the people of the Seal family of Calcutta. And though Government conferred, both on the late and the present head of the family, the title of Raja as a personal distinction, it is hoped that the Government will restore to the family its hereditary title of ancient origin. The Raj has always been loyal to the British, and successive District Officers, Commissioners of the Division, and Lieutenant-Governors have appreciated the good work that has been so unostentatiously carried on by the Raj, and the good feeling that has always existed between the Raj family and the district officials. On this account the Raj enjoys the privilege of keeping two guns, with other firearms and ten retainers.

There is a nicely-situated guest house maintained at the expense of the Raj, and here Officers of Government are entertained whenever they choose to accept the hospitality of the family. The estates are managed by the Dewan Sahib, with the assistance of Managers, working directly under the control and guidance of the Raja Bahadur, the Dewan being the executive head of the Raj.

Raja SATI PROSAD GARGA. The head of the Mahishadal Raj family, was born on the 27th December 1881. He is the son of the late Raja Iswari Prosad Garga, and as described above, fifteenth in descent from Raja Janardan Upadhyaya, who founded the Raj in the year 1600. It was in 1888 that the father of the present Raja died, and upon his uncle, Raja Jyoti Prosad Garga, devolved the duty of his up-bringing and that of his younger brother, Gopal Prosad Garga, who was born in 1885. From their early boyhood the brothers were placed in the charge of eminent tutors and pundits, and both of them passed with credit the Entrance Examination of the Calcutta University. In his boyhood the Kumar Sati Prosad Garga was somewhat delicate in health, and he was given the benefit of residence at Darjeeling and at Mongyr to recruit. As regards his intellectual development, as above stated, he passed the Entrance Examination in 1899, with credit, but his uncle, the late Raja Jyoti Prosad, would not allow him to enter the University. In March 1900 he married the daughter of Babu Gadadhar Misra, of Benares. His guardian died of cancer early in the following year, but before his death he had given his nephew a practical course of training in zemindari affairs, and had insisted upon his sharing the burden of management. This practical training stood him in good stead when, on the death of his uncle, he was called upon to assume complete control of his own affairs. And it is gratifying to record that during the long illness that preceded the death of his guardian, he was in constant attendance at his sick-bed; such filial affection and devotion being rare in the families of the wealthy. The Sradh ceremony was performed in a style befitting the rank and position of the deceased gentleman.

On the death of Raja Jyoti Prosad the question arose as to whether the Estate should be taken over by the Court of Wards, and on this point the Commissioner of the Division wrote to the Kumar on the 23rd January

1901 to the effect that he saw no object in asking the Court of Wards to intervene, and that he had written to the Collector advising him not to listen to any such suggestion. "Although," he wrote, "if the Court of Wards were to interfere, you would be a minor, so long as it does not do so, you must be considered of full age by Hindu Law, being over eighteen."

In consideration, therefore, of the young Kumar's training, and his ability to manage the affairs of his Raj during the two years that remained to complete his minority, the Court of



Raja SATI PROSAD GARGA.

Wards did not intervene. The confidence reposed in him by the Government was fully justified, and he continued to conduct the affairs of his zemindari with judgment and success until, on the 27th December 1902, he attained his majority and assumed full and uncontrolled powers. In April 1903 this event was formally celebrated with befitting pomp and ceremony and on this date he associated his younger brother, Kumar Gopal Prosad Garga, with the management of the very valuable property known as Nijjote. He also celebrated the mar-

riage of his younger brother with much ceremony, and with a lavish expenditure never before witnessed in Mahishadal, upwards of a lakh of rupees being disbursed on this occasion.

Since he first assumed responsible control of the Raj, the Raja Bahadur has designed and carried out many improvements which have added considerably to the value of the property. From 1901 to 1904, inclusive, there was a succession of bad years, but in spite of this work on the improvements already in progress was carried on continuously and many new khals and other works of public utility were completed. He also successfully negotiated the purchase of a further eight-anna share of Pargana Tumluk, thereby making the Mahishadal Raj a sixteen-anna proprietor of the said Pargana.

On the 26th November 1906, the young Kumar Gopal Prosad Garga attained his majority and the Raja Bahadur celebrated this event with the same degree of ceremony and the same lavish expenditure that marked his own coming of age. From this time the Raja Bahadur allowed his younger brother to supervise the management of the Raj in all its branches, the latter having his office in the new Kutcheri buildings. This was a notable innovation, for no previous head of the Raj, either himself or by direct representation, had ever held Kutcheri in the same building and with other officers of the zemindari. The new order of things reflects credit on the young Kumar, the Chota Raja Bahadur as he is called, and is doubtless a direct result of the progressive ideas with which he is imbued. A son was born to the Chota Raja on the 29th August 1909. The happy event was celebrated with great pomp and rejoicings by the Raja Bahadur, alms and charities being distributed with an unstinted liberality to some 6,000 beggars.

The Raja Bahadur, his brother, and his brother-in-law take a keen interest in the physical development of the students and school boys of the Raj, and by the introduction of manly

sports and out-door games, they do their utmost to encourage healthy competition. The two brothers have also artistic tendencies; they write poetry in Bengali and are fond of painting. In the last named art they have attained a certain degree of proficiency and the pictures that decorate the Car of Gopaljee are the result of their joint efforts. They are also keen photographers and excellent shikaris.

As in the past, so in the present, the Raj is distinguished for the liberality with which it encourages worthy objects, and the Raja Bahadur responds readily to the calls for donations towards various public and private purposes. The Raja is a strictly religious man and an orthodox Hindu; a vegetarian and a total abstainer. He is a staunch believer in the omnipotence of the Almighty, an upholder of the truth, and a just and generous guardian

of the large properties committed to his charge. His domestic relations are of the happiest. In April 1908 the Lieutenant-Governor of Bengal, when conferring upon him the title of Raja, said in the course of his speech:—"In consideration of your very high position in the District, your unstinted liberality and your excellent character, the title of Raja is conferred on you."



Professional.

Rao Bahadur DHONDIBA HANUMANTRAO BARDE, J.P., a well-known and enterprising Building Contractor, and a specialist in matters of Hindu architecture, was born at Kodit, Purandhar Taluka, in 1841. He is descended from the celebrated family of Bhonsle of Bhuj in the Satara District, and is related to several Maratha ruling Chiefs in India in-



Rao Bahadur D. H. BARDE.

cluding the royal house of Gwalior. The family name was changed to that of Barde nearly 400 years ago as some of its members stormed Kodit and captured it. After going through an elementary course of instruction in the village school, he began his career in the early sixties as a Building Contractor in Bombay, and soon won the golden opinions of Civil Engi-

neers and Architects by his urbanity, integrity and capabilities. Mr. James, M.I.C.E., for very many years Deputy Executive Engineer of the Bombay Municipality, says, "I have nothing but praise to give of his good work and the way in which they have always been carried out, and there is no Contractor I would rather give work to than Rao Bahadur Dhondibar Hanumantrao." He has carried out numerous Government, Port Trust, and Municipal works of various descriptions and magnitude, including Tata's palace, with consummate skill and remarkable success.

Rao Bahadur Dhondiba's proficiency and skill in Hindu architecture are seen in the excellent pile of structures at Wanoree near Poona, built for H. H. The Maharaja of Gwalior. Mr. Shapoorjee N. Chandabhoy, F.R.I.B.A., of the firm of Messrs. Shapoorjee N. Chandabhoy & Co., received very valuable co-operation from the Rao Bahadur in regard to the style and design of the Temple and Chhat-tree works at Wanoree.

Rao Bahadur Dhondiba is also a public spirited citizen, rendering unostentatiously valuable services both to the Government and his countrymen. He was nominated Justice of the Peace for the Town and Island of Bombay in 1892, and the title of Rao Bahadur was conferred upon him in 1898 as a personal distinction by Lord Elgin, the then Viceroy and Governor-General of India. He also obtained a certificate of merit in 1899 from the Bombay Government for having rendered "valuable services to Government in Bombay during the operations against Plague in the

years 1897 to 1899." Very recently he was cordially thanked by Government in Government Resolution and Notification, dated 1st September 1908, for the assistance rendered by him in connection with the recent disturbances in the City of Bombay.

Messrs. BASANT RAM & SONS are a leading Indian firm of Public



Pandit BALAK RAM PANDYA.

Accountants and Auditors in the Punjab, with their office at Lahore, but their practice extends throughout Northern India. The firm was originally established by the late Pandit Basant Ram, a retired Government Accountant of superior attainments and who had educational qualifications of a very high character. His sons, Pandit Vidya Sagar Pandya and Pandit Balak Ram Pandya, were all along

active partners of this firm when in 1903 Pandit Vidya Sagar Pandya left the firm as he was asked to join the People's Bank of India Limited, and he is now the Secretary of the Indian Bank Limited, Madras. The present managing proprietor of the firm is Pandit Balak Ram Pandya, an educated and energetic young gentleman, having a varied experience in accounts. Pandit Balak Ram Pandya is an examiner for the Punjab University in Commercial subjects. With Pandit Balak Ram Pandya the firm has obtained a wide popularity and extensive practice in business circles. Messrs. Basant Ram and Sons are Auditors of various Banks, Insurance Companies, Mills, Co-operative Stores, Factories, Trading and Manufacturing concerns, Presses, Estates, Associations, Libraries, Clubs, Colleges, etc. Besides the confidence reposed in them by the Joint Stock and other Companies in the Punjab and elsewhere, their services are availed of by the Government Institutions, whenever they are in need of the services of an Auditor, or an expert in Commercial matters.

Mr. CHARLES BARRAT BENNETTS, Cashier and Chief Accountant, Coregun Gold Mining Company, Kolar Gold Field, and



Mr. C. B. BENNETTS.

Secretary and Treasurer to Messrs. John Taylor & Sons' Committee,

Kolar Gold Field. Born in Cardiganshire, Wales, and educated at his native place and at St. John's College, Ystrad Meurig. His father and grandfather had both been in the service of Messrs. John Taylor & Sons, the well-known firm of Mining Engineers of London for many years. He had the misfortune to lose his father in 1883, when he was 16 years of age. At this time Messrs. John Taylor & Sons took him into their service and employed him in the office department of their Lisburne Mines in Cardiganshire, where he remained some eight or nine years. He acquired a practical training in mining during that period. He was offered and accepted his present post on the Kolar Gold Field in 1890. He has had a practical experience in mining extending over a quarter of a century. During the absence of the Superintendent of the Ooregum Mine he has on several occasions acted for him. Mr. Bennetts' family were formerly settled in Devonshire where they were for many years engaged in mining. His late father moved to Cardiganshire in 1846. Mr. Bennetts has also acted for the past fifteen years as Agent for Nobel's Explosives Company.

The Late Dr. JUGGO BUNDHU BOSE, M.D. Born in the year 1831. Educated at Dacca College where he gained the Junior Scholarship in 1849. In the following year he joined the Medical College where he obtained a second scholarship. He passed the first year's examination with credit and was appointed assistant to Dr. Allen Webb at that time Demonstrator of Anatomy, and secured another scholarship. During his five years' course at the Medical College he carried off the following medals and certificates of honour:—Gold medals in Descriptive Anatomy, Chemistry, Materia Medica, Medicine, the Goodeve medal, 3rd class certificate of honour in Anatomy and Physiology, 2nd certificate in Botany, and 1st certificate of honour in Botany, Anatomy and Physiology. He passed the junior examination, standing first in the list, and obtained prizes in Chemistry and also the Goodeve prize. He took first place in the Midwifery examination,

taking a gold medal and first class certificate of honour in the subject.



The late Dr. JUGGO BUNDHU BOSE.

He passed the G.M.C.B. examination with great credit, standing first in order of merit. On passing his first examination he was appointed in charge of the Seamen's Hospital at Akyah, an important post which testified to the great esteem in which he was held by his superior officers. Here he discharged his duties with ability. Later he was appointed Demonstrator and Professor of Anatomy at the Medical College, and subsequently Teacher of Materia Medica in the Campbell Medical School, from which service he retired on pension owing to failure of health. In 1863 he passed the M.D. examination. In the year 1878 Dr. Bose was made a Fellow of the Calcutta University, and also became President of the Faculty of Medicine at the same University. In 1889-90 he was Examiner for the M.B. and M.D. Examinations. In 1887 he founded the Calcutta Medical School at present located at Belgachia and acted as its President. He was elected Vice-President of the Medical Congress held in 1896. He has written largely for the medical press, and published several articles on Diphtheria, Typhoid Fever, Scarlatina,

Malarial Fever and Malaria, which have been regarded as authoritative and are quoted in several medical works. Dr. Bose was held in great esteem by his contemporaries and had an extensive private



Mr. NOGENDRA KUMAR BOSE.

practice. He devoted time to public affairs and served for about ten years as a Municipal Commissioner, but later in his career the pressure of his professional duties compelled him to give up public life. He devoted attention to the arts and was skilled in painting and embroidery work. Dr. Bose was noted for his charities. He established a Charitable Dispensary in his native village, and used regularly at Durga Puja time to distribute alms, food, and clothing to thousands of the poor. He died in the year 1898 at the age of 67. His charities are carried on by his only son Babu Nogendra Kumar Bose. Dr. Bose came of the ancient family of that name settled at Dandirhat in the 24-Parganas, Bengal, who trace their origin from Dasarath Bose, who came from Kanauj with the five Brahmans who were invited to the court of Adisur, then King of Bengal, some 400 years ago.

Mr. PERCY BOSWORTH-SMITH, Manager and Superintendent, Tank Mine, Geologist and Metallurgist, Kolar Gold Fields,

India. Born in England in the year 1862, and educated at Chatham House, Ramsgate, and the Royal School of Mines, where he obtained his Associateship Certificate and gained a Bessemer Medal. He came to India in the year 1885 on being appointed by the Government of Madras to report on diamondiferous and gold-bearing lands. After four years in Government service, he obtained employment as Manager of the Sonapet and other mines in Chota Nagpur, where he remained for three years, leaving in 1893 to take up work in the oil fields of Gallicia. He returned to India in 1894 and took up his present appointment as



Mr. P. BOSWORTH-SMITH.

Manager and Superintendent of the Tank Mine, Kolar Gold Fields. He inspected and reported upon mica mines in Nellore, Richmond, Phoenix Glemock, and other gold mines in Wynaad, Husun and other mines on the Dharwar Gold Field, as well as many mining properties in the Mysore State. In 1905, his services were entertained, in addition to the duties of the above post, as Manager and Consulting Engineer to the Deccan Gold Field Development Company, Ltd. While Mr. Bosworth-Smith was Mineralogist to the Madras Government, he wrote a report on the Kolar Gold Fields and their southern extension,

which was published in 1888. He is Vice-President of the Mining and Geological Institute of India, Fellow of the Geological Society, London, Member of the Institute of Mining and Metallurgy, London, and Member of the American Institute of Mining Engineers. He takes a keen interest in sport, has captained the local Kolar Cricket Club for some time past, and is also a good rifle shot, having won several cups at rifle meetings.

Mr. ROBERT HENRY POWER BULLEN, M.I.M.M., London, Superintendent, Ooregum Gold Mining Company, Ooregum. Born at Warwick, Queensland, Australia, in the year 1866 and educated at Downside College, near Bath, England. On leaving school he studied at Camborne, England, for the purpose of acquiring a knowledge of mining, assaying, and surveying. He proceeded to America, and from 1885 to 1888 he was engaged in gold mining in Venezuela. In the latter year he came out to India where his services were engaged for the Kolar Gold Fields.



Mr. R. H. P. BULLEN.

He is now the senior Superintendent on these Fields in point of residence. From 1891, he was engaged in managing mines for various Companies, but after two years, from 1893, his services were defin-

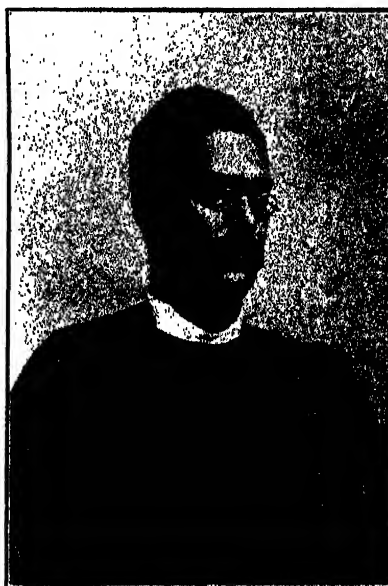
itely engaged by Messrs. John Taylor & Sons, Mining Engineers of London, under whom he served in several Companies till 1900, when he was appointed Superintendent to the Ooregum Mine. Mr. Bullen is a member of the Kolar Gold Fields Mining Board. He is well known as an extremely able Mining Engineer and his wide and varied experience has been of great benefit to his employers. He takes the greatest interest in the affairs of the Kolar Gold Fields, with which he has now for many years identified himself.

Mr. DWARKA NATH CHAKRAVARTI, M.A., B.L., M.B.A.S., Honorary Fellow of the Calcutta University, is one of the most prominent members of the Calcutta High Court Bar. He comes of a high class and respectable Brahman family of the village of Gangatiya in the District of Mymensingh. His grandfather, the late Ramananda Chakravarti, was a great devotee of Shiva and lived a life of high devotion in that part of the country. His father, the late Kalikishore Chakravarti, was one of the leaders of the Mymensingh Bar, who like his father also was of a religious turn of mind and retired from the profession early in life.

Dwarka Nath is the eldest son of his father. At a very early age he was educated at the Hardinge School at Mymensingh and passed the final examination with a scholarship and joined the Zilla school where he obtained a scholarship at the Matriculation Examination. He then joined the Presidency College of Calcutta, secured a scholarship in the First Arts Examination and graduated from there, and obtained the Ryan scholarship. He stood first in Physics and Chemistry in the M. A. Examination and was offered a post as Lecturer in Science in the Presidency College. But he had made up his mind to join the Bar, so he declined the post, although much pressed by Sir Alfred Croft, the then Director-General of Education, to accept it. From the very beginning of his career at the Bar he showed great ability and legal acumen. His rapid rise and great success at the Bar have fully justified the early predictions which were made of his future career by mem-

bers of both the Bench and the Bar. His great talents, affable and winning manners have secured for him a high position in Calcutta Society.

He has been always a great patron of education, and has helped many poor students with monthly allowances, books, food and lodging. In 1898 he was elected a Fellow of the Calcutta University by a large majority and is now an Honorary Fellow for life. He has been nominated by the Lieutenant-Governor of Bengal as a member of the Agricultural Board of Bengal, and is still a member of that Board. He became a member of the Asiatic Society of Bengal in 1906 and was made a member of the



MR. D. N. CHAKRAVARTI.

Indian Research Society in 1907. He is a prominent member of the British Indian Association.

The respect in which he is held by his countrymen and the confidence they have in him can be judged from the fact that he had been offered the Presidentship of Mymensingh District Conference, but he declined the honour because he is a moderate of moderates in politics.

The Chakravartis of Gangatiya may be called a race of lawyers. The father of Dwarka Nath was a first grade pleader of Mymensingh in the early sixties. His uncle, the late Ishan Chandra Chakravarti, B.L., was for some time the Government Pleader and was the leader of

the Mymensingh Bar. His other two uncles, Harihar Chakravarti, B.L., Vakil, High Court, and Kalinarayan Chakravarti, are still practising at Mymensingh. His younger brother, Girish Chandra Chakravarti, is one of the most successful pleaders of Kishoregunge in the District of Mymensingh, and is the Vice-Chairman of the local Municipality.

Dwarka Nath is an austere and orthodox Hindu. With the help of several leading members of the Brahman community he has organized an Association called the Bangiya Brahman Shava, composed entirely of learned and leading Brahmans, for raising the moral and spiritual status of the Brahmans of Bengal. The Shava, purely a non-political one, promises to be a very successful organization. Although a liberal patron and organizer of many movements for the educational, social, agricultural and industrial improvement and welfare of his countrymen, he is of a retiring nature, devoting the whole of his time to the interests of his clients, and his books, of which latter he has a very large library. He has four sons, all of whom are at present studying in Calcutta. Gopal Chandra the eldest is a graduate and is intended for the law.

Mr. MUNCHERSHAH N. CHANDABHOY, M.S.A., M.S.E. (Lond.), Architect, Engineer and Surveyor, Raja Bahadur Motilal's Mansions, Apollo Street, Fort, Bombay. Born at Surat, on the 12th May 1856, and educated at Bombay Proprietary School. He studied Engineering under his father, the late Mr. Nusserwanjee Chandabhoy, Professor at the Government Engineering School, Poona, and in course of time became a partner in his father's Firm. In this capacity he practised his profession in Bombay. Under his auspices the Firm carried out many large and important building contracts in Bombay, constructing some thirty large cotton mills, silk mills, and erecting many commercial buildings in Hornby Road and Esplanade Road, including the building next to Messrs. Treacher & Co.'s establishment, also the building belonging to the Hon'ble Byramjee Jeejeebhoy Trust Settle-

ment, now in occupation of Messrs. Hoare & Co. Mr. Chandabhoj has recently completed a large college building called "The Byramjee Jeejeebhoy Charitable



Mr. MUNCHERSAH N. CHANDABHOJ.

Institution," opposite the Charni Road Railway Station, Queen's Road. Mr. Chandabhoj is now adding a fourth floor to "Alice Buildings." He has constructed many of the large bungalows on Malabar Hill, Bombay. At Poona he built a palatial building, known as "Jeejeebhoy Castle," and he has also erected a number of mills and residential houses and bungalows in the Mofussil. To his building contracts he adds a large business as Surveyor, Appraiser and Adjuster, in which capacity he is employed by many leading European Firms and Fire Insurance Companies. He has had extensive practical experience in this line for many years past. He also acts as valuer, etc., in lands and buildings, and as arbitrator in public and private cases. In his business he gives employment to a large staff of workmen and over-lookers. Mr. Chandabhoj is Agent for the Hindustan Pressing and Manufacturing Company, Limited, and the British India Pressing and Manufacturing Company.

The late Mr. NUSSERWANJEE CHANDABHOJ, the First Parsee

Civil Engineer, was born in Surat in 1824. He received his early training in the local Government English School and being elected to a Clare Scholarship joined the class of Civil Engineers in the Elphinstone College, Bombay. He soon there won the good opinions of Professors Bell, Orlebar, Pole, and Harkness, particularly for his proficiency in mathematics. He passed the Civil Engineering examination and joined Government service in 1849, and was appointed teacher in the Engineering class opened in Bombay. In 1854 he passed very creditably a higher examination and was found qualified for promotion to the rank of 1st class Assistant Engineer. He was given charge of the Engineering School at Poona, where he conducted his important duties in a very efficient manner, training up batches of young men for the profession at a time when there was very great demand of them. For this he was warmly thanked by the Government. He left Government service for private practice in 1863. During his stay at Poona he rendered a very important service to the local Municipality in connection with the



The late Mr. NUSSERWANJEE CHANDABHOJ.

Katruj Water-works. He was appointed paid Commissioner for Poona in 1866, but preferring private practice he returned to Bombay in

1868. He soon built up an extensive practice, having designed and carried out many mill buildings, bungalows and architectural edifices. His report on the railway bridge of the G. I. P. R. at Nimbora near Bhusawal in connection with a railway accident was highly admired by the late Mr. Thomas Ormiston, M.I.C.E., of the Port Trust, one of the then leading Civil Engineers in India. He took a keen interest in the civic affairs of Bombay as a member of the bench of the justices, and latterly as a member of the Municipal Corporation. He died in 1884.

Messrs. SHAPOORJEE N. CHANDABHOY & CO., Architects, Engineers and Surveyors, Bombay. Mr. Shapoorjee N. Chandabhoj, F.R.I.B.A., M.S.A., M.S.E. (Lond.), was born at Surat in 1850, and was educated at Bombay. After finishing his education he joined his father, the late Mr. Nusserwanjee Chandabhoj, Government Civil Engineer, from whom he received a thorough and practical training, and after serving with him for several years, he, together with his younger brother, became a partner in the firm in 1880. Four years later the father died and the two brothers continued the business in partnership until 1900, when the partnership dissolved, and Mr. Shapoorjee Chandabhoj continued the business on his own account. Later on he was joined by the three partners, who, together with himself, at present constitute the firm, Messrs. Vicajee A. Taraporvala, M.S.A.; Sohrab F. Bharoocha, M.S.A.; and Burjor S. Jamshedji Aga, L.C.E.

Mr. Shapoorjee N. Chandabhoj was, in 1904, elected a fellow of the Royal Institute of British Architects, he being the only Parsee gentleman practising as an architect in Bombay who holds that honour. He had previously, in 1890, been elected a Member of the Society of Architects, London, and in 1896 he was elected a Member of the Society of Arts, by the Council in London. Mr. Shapoorjee is also Architect to His Highness the Maharaja of Gwalior, for whom he is now building a temple at Poona. He has also erected and altered many large buildings in Bombay and the Mofussil. Among the buildings

in Bombay designed and carried out by him are the Alice Buildings, The Framjee Petit Parsee Sanatorium, and the new block of the Great Western Hotel. Mr. Shapoorjee has also designed and built Spinning



MR. SHAPOORJEE N. CHANDABHOJ.

and Weaving Mills. The firm are at present Architects to the Sassoon Spinning and Weaving Company, the Sassoon Silk Mills, the Emperor Edward Mills, and the Parsee Panchayet, etc. He has followed his profession in Bombay for upwards of thirty years, and for twenty-four years he has been a prominent Freemason; is Past Master of Lodge Rising Sun No. 556 S. C., P. D. J. D. of the Grand Lodge, and is also one of the founders of Lodge Sir Lawrence Jenkins, No. 3275 E.C.

Mr. VICAJEE ARDESHIR TARAPORVALA. M.S.A., F.S.Sc. (Lond.), was born in Surat in 1875. He belongs to the well-known family of Vicajee Meharjee of Tarapor, which is his ancestral town, in Thana District. He received his primary education in the Fort High School of Bombay, and matriculated from the Government High School of Thana, known as the Byramjee Jeejeebhoy High School. He soon joined his father as a building contractor. After a period of two years he took to the study of architecture by correspon-

dence and artiled himself to Mr. Shapoorjee N. Chandabhoj, when he had soon the opportunity of carrying out under him the work of the Framjee Dinshaw Petit Sanatorium for Parsees, a magnificent pile of buildings on Cumballa Hill, Bombay. Besides many other buildings Mr. Vicajee has also carried out the work of Petit Hall, a palatial building on Malabar Hill. He is also responsible for designing and carrying out the work of the Bomanjee Dinshaw Petit Parsee General Hospital, now in course of erection on Cumballa Hill. Mr. Vicajee was elected Member of the Society of Arts and Fellow



MR. V. A. TARAPORVALA.

of the Society of Science in 1901 and Member of the Society of Architects, London, in 1904.

Mr. SOHRAB F. BHAROOCHA. M.S.A., F.S.Sc. (Lond.), son of the late Mr. Framjee Sorabjee Bharoocha (nephew of the late Mr. Nowrozjee Furdoonjee), Chief Justice, and for some time Judicial Councillor and Dewan of the Jamnugar State in Kathiawar, was born in Bombay in 1877. He was educated at the Elphinstone High School and the Victoria Jubilee Technical Institute. He passed the technical examinations of the City and Guilds of London Institute and also qualified himself as

an Accountant by passing the examination of the London Chamber of Commerce and other English bodies. He also managed for some time the Victoria Roller Flour Mills which belonged to his



MR. S. F. BHAROOCHA.

father. He was then artiled to Mr. Shapoorjee N. Chandabhoj who was then engaged with the work of the Framjee Dinshaw Petit Parsee Sanatorium, and subsequently joined the firm as partner. He has carried out the work of the "Esplanade Substation" for the Bombay Electric Supply and Tramways Co., Ltd., buildings in Princess Street for the late Hon'ble Mr. Justice Badrudin Tyabji, the building known as "Mon Desire" at Cumballa Hill, the Students' Quarters built of cement and concrete in connection with the Technical Institute, and other works. He was elected Member of the Society of Arts and Fellow of the Society of Science in 1901. He received instruction from Mr. G. A. T. Middleton, A.R.I.B.A., of London, and was elected a Member of the Society of Architects, London, in 1904. He also attends to the adjustment and survey of fire insurance matters in connection with the firm.

Mr. BURJOR SORABSHAW JAMSHEDJEE AGA, L.C.E., F.S.Sc.

(Lond.), grandson of the late Mr. Nusserwanjee Chandabhoy, was born in Bombay in November 1879. On passing the Matriculation Examination of the Bombay University from the Proprietary High School he joined the Elphinstone College, and thereafter passed the Previous Examination. After this he studied for the Civil Engineering line in the College of Science, Poona. He passed the L. C. E. Examination of the Bombay University in 1902. He served on the Bombay Municipality for about four years as an Inspector of Streets and Buildings and of the House Improvement Branch. He was elected Fellow of the Society of Science, London, in 1903. He has carried out the construction of the buildings of the Colaba Land and Mill Company, Limited, the Emperor Edward Spinning

Mukerjee and inherited large estates in the neighbourhood of Calcutta. He is a distinguished graduate of the Calcutta University and a



Rai Sahib G. C. CHATTOPADHYAY B.A., C.E.

passed Assistant Engineer from the Thomason Civil Engineering College, Roorkee.

In the first year of his service, he was employed in preparing projects for Jubbulpore Water-Works, the Jubbulpore-Mandla Road, and of the Warora Colliery. In the 2nd year of his service in 1880, he was transferred permanently to the State Railway Branch of the P. W. D., and placed on the construction of the Weinganga Bridge and then on the Nagpur-Chattisgarh State Railway Extension Surveys. In 1882 he was transferred to Upper Assam where he constructed the Jorhat State Railway, which was the first railway in Assam, and was honoured with the title of Rai Sahib on the opening of the line in 1885. In 1887 he constructed the Durbhanga-Sitamarhi Branch of the Tirhoot State Railway and was promoted to Executive rank. Gopal Chandra has a record service in the Department of Railways, he surveyed and prepared projects for 2,000 miles and constructed over 500 miles of railways. He was on the surveys and construction of the Gauhati section of the Assam-Bengal Railway, of the Calcutta-Midnapur-Cuttack Railway, on the surveys and con-

struction of several branch lines of the Eastern Bengal State Railway, Lalmonir Hat, Deomonir Hat, Myensing-Jagannathgunge, the Bogra-Sultanpur and, lastly, on the Golakgunge-Gauhati extension from which he retired. In 1903 on retiring from service he took chambers in the High Court as Consulting Engineer, Surveyor and Valuer. In the same year he started an Institute of Engineers under the name and style of "Institute of Engineers, Calcutta," and was elected President of the same. It is doing much useful work. Later on he founded an institution to give practical training in Drawing, Surveying and Engineering to a limited number of young people. In 1905 when the Bengal Provincial Agricultural Association was formed under the Presidency of His Honour Sir Andrew Fraser, Rai Sahib Gopal Chandra Chattopadhyay was deputed by the Bengal Landholders' Association, of which he is a member, to represent them on the Agricultural Council. Further he has organised a limited company with a capital of five lakhs of rupees which has been registered under the name and style of the Bengal Agricultural and Dairy Farm, Ltd., being himself the Managing Director.

Rao Bahadur BAPU RAO DADA KINKHEDE, M.A., Pleader, Nagpur. Son of the late Dadaji alias Krishnaje Kinkhede. Born at Nagpur in the year 1856. Educated at the Free Church Institute, Nagpur, and passed the Entrance Examination in 1871. He subsequently attended the Government High School, Saugor, and continued his attendance after this institution was removed to Jubbulpore. In 1873 he passed the First Examination in Arts from Jubbulpore, and joined the Muir Central College, Allahabad, at that time affiliated to the Calcutta University. He took the B. A. degree, second class, in 1875, and the M. A. degree in Sanskrit, second class, in 1877. He was the first student from Nagpur to obtain this honour. Mr. Bapu Rao received scholarships from the Government of the Central Provinces for the F. A. and B. A. degrees, and from the Government of the N.-W. Provinces for the M. A. degree. He also took



Mr. B. S. J. AGA.

and Manufacturing Company, Limited, and other buildings in Bombay. He joined his uncle's firm in 1907.

Rai Sahib GOPAL CHANDRA CHATTOPADHYAY, B.A., M.I.E., C.E., born in 1857, is the youngest son of late Babu Kali Komal Chattopadhyay, a high class Kulin Brahmin, whose grandfather came from Vikrampur, East Bengal, and married the only daughter of Dewan Ranchandra

two scholarships at the Muir College, for Sanskrit. In 1877 he obtained the appointment of Naib Tahsildar at Ramtek. C. P., afterwards serving in the same capacity at Warora. In 1879 he was appointed Clerk of Court in the office of the Deputy Commissioner at Chanda. In the meanwhile he studied law and passed the local Pleader's Examination in 1880. He was appointed Extra Assistant Commissioner in 1881 and served at Wardha and Nagpur, but resigned Government service in December 1883 to join the Bar. He is a 1st grade Pleader, and has practised at Nagpur ever since. He joined the local Municipality in 1884, and since 1886 has filled the post of Vice-President to that



Rao Bahadur BAPU RAO DADA KINKHEDE.

body. For some years he was Managing Director of the C. P. Swadeshi Mills, since converted into the Petit Swadeshi Mills. He is a member of the Committees of the Morris College and Neill City School, and Secretary of the local branch of the Famine Relief Charitable District Committee. In 1896-1897 and 1899-1900 also, he filled the last named position. The distinctive title of "Rao Bahadur" was bestowed upon him for these and other public services. He has a son, Madhava Rao, who is also a Pleader (1st grade), at Nagpur, and who took the B. L. degree at Morris College.

The Honourable Mr. MANEKJEE BYRAMJEE DADABHOY, Bar.-at-law, Nagpur, was born in July 1865. He is the second son of Khan Bahadur Byramjee Dadabhoy, J.P., late Registrar of Bombay, who, after a long and distinguished career, retired from the Government service in the year 1887. He joined the Middle Temple in 1884, and was called in the Hilary Term, 1887. While in England he was elected member of the Council of the East India Association, a high honour for a young man of his age. On his return to India he joined the Bombay Bar where he practised for three years. In 1890 he settled in Nagpur. While in Bombay he was made a Justice of the Peace and was elected a member of the Bombay Corporation in 1888 in which capacity he rendered useful service. Before he came out to India as a member of the Bar, Mr. Manekjee read several interesting papers at the East India Association. One of these was on "The Administration of India by England." In a long review, he shewed how greatly India had advanced politically, morally, and socially under British rule. Mr. Manekjee then expressed views which seem to be of special importance in the present circumstances of the country. He begged the meeting to believe that the people of India, with the exception of some fanatics and dreamers, had too long enjoyed the blessings of the just, merciful, and enlightened rule of England to wish to change it for any vision of absolute freedom, which would almost certainly end in chronic anarchy or despotism of the worst type. Mr. Manekjee's important paper on "The Needed Reforms in the Administration of British India" attracted the notice of Lord Northbrook who wrote that it seemed to him to be written in a very good spirit, and to raise questions well worthy of careful consideration. After a residence of three years in England when Mr. Manekjee returned to Bombay in February 1887, a Home journal in noticing his departure, said of him: "While studying in the Middle Temple, he had a very successful career, and during his stay here, he distinguished himself by giving various addresses before political and social institutions."

Khan Bahadur Byramjee Dadabhoy had given an afternoon party at his bungalow in Foras Road, Byculla, to Sir Roper Lethbridge, C.I.E., M.P., and Lady Lethbridge, in November 1886, when they were on a visit to India. Sir Roper, in returning thanks for the toast of his health and that of Lady Lethbridge, spoke of the Khan Bahadur's son, Mr. Manekjee, in very complimentary terms. He said: "The Khan Bahadur has spoken in the kindest terms of some friendly services we were able to render to his son, Mr. Manekjee, in England; but this I can say that the eminently successful career of Mr. Manekjee in London—and I am delighted to be able to say so in the



The Hon. Mr. M. B. DADABHOY.

presence of his parents who may justly be proud of him,—has been such as to render quite unnecessary any help and any introductions that his friends could give him. I think it might encourage those young gentlemen here (and I hope there are many) who may be contemplating a visit to England to know that Mr. Manekjee's marked ability and eloquence, his high and independent character, and his amiable disposition have not only obtained for him the friendship of eminent politicians like Lord Harris and Sir John Gorst, but have also placed him in the honourable position of an elected member of the Council

of the East India Association, and in other ways singled him out as a man of mark. Now that he has triumphantly passed his final examination for the Bar and is about to return to India, I am perfectly sure that a high and useful career awaits him in this country." In 1883 Mr. Manekjee annotated and published a Commentary on the Land Laws of the Central Provinces, and six years later, he brought out a Commentary on the Central Provinces Tenancy Act, which gave unmistakable proof of his industry and learning. In 1891, Mr. Manekjee, whose forensic ability had become well known, was appointed Government Advocate at Nagpur. A year before that he had been instrumental in getting the great Bhonsla Estate partitioned in the interests of the young members of the princely house. In 1907, he presided at the Provincial Industrial Conference at Raipur. Mr. Manekjee has always taken a warm interest in the municipal affairs of Nagpur, and was for nineteen years a leading member of that Municipality. He has been a pioneer in the development of the mineral resources of the Central Provinces, and in the establishment there of ginning and press factories. By his genial good nature, his ability, his public spirit, and his courtesy he has made himself a general favourite among the inhabitants, and has won the esteem of high European officials. He has not only been a prominent member of the Nagpur Municipality, but has indented himself during the last 20 years with all the important political, social, and industrial movements in the Central Provinces.

In 1908, in recognition of his many distinguished services, he was appointed a Member of the Imperial Legislative Council of the Governor-General of India, as a representative for the Central Provinces. The appointment has given universal satisfaction throughout India.

Mr. ZACHARIAH MONTEAGLE D'SILVA, Advocate, Mandalay, is a native of Burma, having been born at Moulmein in 1837. His father held an appointment in the Madras Commissariat under the Government of India. Mr. D'Silva

was educated in the country, privately, and at St. Patrick's School, as it was then. At the age of fourteen he was apprenticed to a mercantile firm, but before he had served his term another firm asked for his services and, permission having been obtained, he was transferred. He shortly afterwards entered Government employ, and Sir Archibald Bogle, K.T., Commissioner of the Tenasserim Province, appointed him as a clerk, and subsequently Head Clerk of the Judicial Branch of the Commissioner's Court. His services were so well appreciated that at the age of twenty-one he was offered a judgeship (Tsitkay), but this he declined on account of his youth. When



MR. Z. M. D'SILVA.

Sir Archibald Bogle retired, Mr. D'Silva decided to leave Government service, and he again engaged in mercantile pursuits. He next turned his attention to the study of the law, and entering the legal profession, he practised at Moulmein till 1886, when Upper Burma having been annexed by the British Government, he removed to Mandalay and continued the practice of his profession at that centre until about 1902, when he retired from active professional life. Since his retirement he has devoted his attention to literary and other work. He was enrolled an Advocate of the Chief Court of Burma on

its establishment. In 1886, Mr. D'Silva started a newspaper at Mandalay at the suggestion of Reuter's agent, who gave him every assistance in obtaining presses and plant. Thus was established the present "Mandalay Herald," a triweekly publication and the oldest established newspaper in Upper Burma. Mr. D'Silva was a member of the Municipal Council of Mandalay for a short period. He owns large property in land and houses, and is the proprietor of Salween House, Attaran House, Tenasserim House, Amherst House and Moulmein House. He has also interests in saw mills and rice mills, and has recently been engaged in the establishment of a motor-bus service in the Shwebo District. Mr. D'Silva is in his 71st year. He still works with energy and activity, and would put many a man, younger in years to the blush.

The Honourable Sir VEMBAKKAM COMANDUR DESIKA CHARRY, K.T., B.A., B.L., F.M.C., Madras. Born at Madras on 29th December 1861 of the well-known Vembakkan family of which Sir V. Bhushyam Iyengar, K.T., C.I.E., Dewan Bahadur, is the present recognised head. Among other distinguished members of this family were the late Dewan V. Ramiengar, C.S.I., and the late Dewan C. V. Runga Charlu, C.I.E. Sir Desika received his education at the Madras Presidency College, whence he graduated in Arts in 1882. In 1886 he obtained his degree of B. L. and commenced practice at the Madras Bar where his father, V. Rajagopala Charlu, and his uncle, the Honourable V. Sadagopa Charlu, were practising lawyers of the High Court of Madras in the sixties of the nineteenth century. He has obtained a considerable reputation at the Bar. His professional occupations, however, have not limited his energies in other directions, and he has always been active in public life. In 1896 he was elected a member of the Madras Municipal Corporation and for the greater part of his connection with that body he has been an active member of the Standing Committee. The Madras Corporation elected him in the year 1904 to

act as its representative on the Madras Legislative Council. He still continues an active member of Council. He takes interest in all



Sir V. C. DESIKA CHETTY, KT.

public, social and sporting matters and is connected with most of the learned societies. His brother graduates elected him a Fellow of the Madras University, and he was also a law Lecturer at the Local College from 1896 to 1900. On the occasion of the visit of the Prince and Princess of Wales to Madras in January 1906, he received the honour of Knighthood by accolade direct from the Royal hands. This is a unique honour for an orthodox Brahmin who is unable to cross the ocean to pay homage to his King-Emperor in England, in person. Lord Amphill, the then Governor of Madras, introduced him to his Royal Highness the Prince of Wales as a staunch "Congress-wallah." Sir Desika holds many honorary offices in Madras, among which are the following:—He is one of the Vice-Presidents of the South Indian Athletic Association, and he serves on the Managing Committee. He also holds membership of the Executive Committees of the Agri-Horticultural Association, the Madras Mahajana Sabha, the Madras Athletic Association, the Cosmopolitan Club (being a life trustee of this body),

and of the Mylapore Club. He is also a life trustee of the Victoria Memorial Fund and a member of the Council of the Victoria Technical Institute. He acted as Joint-Secretary to the Relief Fund started in 1906 in connection with the disastrous failure of the Banking firm of Arbuthnot & Co. He is also one of the Vice-Presidents of the Famine Charitable Relief Fund recently started in Madras. He was last year appointed by the Government of Madras as one of the Judges of the Madras Small Cause Court.

Dr. E. M. DE SOUZA, M.B., C.M., (ABERD.), Rangoon, Burma, was born in Goa, the Portuguese Province in India, and received his early education there, and in Belgaum. On leaving school he studied Medicine in the Grant Medical College, Bombay, and after that came to Burma and started practice in Rangoon in 1877.

Dr. de Souza's skill soon brought him to the front, and he was not long in establishing himself securely in the land of his adoption. As a pioneer of European methods of medicine among the Burmese, he attracted the attention of the Government officials, who strongly advised



Dr. E. M. DE SOUZA.

him to proceed to Europe. This he did in the early eighties studying at the University College, London, and Aberdeen University,

from which latter he graduated in 1886. His special subject throughout was Pathology, the study of which he has kept up during his frequent visits to Europe, and he is a well-known and welcome visitor in the Laboratories at King's College, London, and Oxford University.

For many years Dr. de Souza held a seat on the Municipal Committee of Rangoon as a Government nominee, and he also gave great interest to the affairs of the Dufferin Hospital, of which Institution he was one of the Consulting Staff. He spends a large part of his time now in England supervising the education of his family, but his interest in Burma is as keen as ever, and his annual visits are welcomed by a large circle of friends and patients. In every sense of the word Dr. de Souza may be termed a public man, and a popular one too; his kindness is well known, and the poor of Rangoon will long remember his unostentatious charity.

Mr. GEORGE PARIS DICK, Bar.-at-Law, Nagpur, Central Provinces. Born at Clifton, Somersetshire, England, in April 1866, and educated in Germany and then at Dulwich College. He is the eldest son of the late Colonel George Thomas Dick, and is a Lord of the Manor of Berrow near Burnham, Somersetshire. Mr. Dick, in preparation for a forensic career, became the pupil of Sir Charles Mathews, the famous English Advocate, with whom he read in Chambers. He was called to the Bar at Middle Temple in May 1889 and joined the Western Circuit and Hant's Sessions holding his first brief at Winchester. In the following year he came out to India. He joined the Judicial Commissioner's Court in the Central Provinces in 1891, and two years later was enrolled an Advocate of the High Court of Fort William in Bengal. He has now practised in Nagpur for 18 years, and also holds the post of Lecturer in law at the Morris College, Nagpur. Mr. Dick is a member of the Nagpur Municipality, on which he represents the learned classes of Law, Medicine and Engineering. He takes a general interest in public affairs; is an appointed member of the Lady Minto Nursing Association for the

Central Provinces, and has done good work as a member of the General Committee, and of several Sub-Committees on the Central Provinces and Berar Exhibition 1908, having particularly interested



Mr. G. P. Dick.

himself in the wood and metal sections, where his untiring energy has made itself felt. He has written a number of articles, and is the author of *Fitch and his Fortunes*, a novel published by Elliot Stock, London, in 1896. Mr. Dick is a prominent Mason and takes great interest in the affairs of the Craft. He is P. M. Lodge Corinth, Nagpur, and Lodge St. Andrews, Kampfee; P.Z. of Chapter Mayo, Nagpur; P.D.C. District Grand Lodge, Bombay; P.S. in District Grand Chapter, Bombay, and also belongs to Rose C. Chapter 18, Bombay. He married Geraldine, daughter of Francis Newman, Esq., Member of the Council of His Excellency the Governor of Ceylon.

"He is District Grand Junior Warden of Bombay for 1909-10."

Mr. PEARY CHAND DUTT, Bar-at-Law (Middle Temple), Jubbulpore, Central Provinces. Born at Calcutta in the year 1868 and educated at Hare School, in the same city. On the completion of his primary education he proceeded to England and studied privately, and at the Middle Temple. He was called to

the Bar in 1892. He returned to India in the same year and was enrolled an Advocate of the High Court, Calcutta, and of the Judicial Commissioner's Court, Nagpur, C. P. He has continued ever since to practise in the Central Provinces with his head-quarters at Jubbulpore, and is considered the leading criminal Counsel in the Central Provinces. He is a member of the Privy Council Bar Association, and Bar Association, Jubbulpore. In the year 1908 he commenced to set up in practice for the Privy Council in London, where he intends to settle in 1909. He has taken steps to fit himself for this work as before leaving England in 1892 he practised for a short time in the



Mr. P. C. Dutt.

Privy Council under the late Mr. R. V. Doyne, at that time leader of the Privy Council Bar. Mr. Dutt has interested himself in the Mining Industry and is a member of the Institute of Mining and Geology of India. He started prospecting work in 1898 and now owns several mines, working them in conjunction with Burn & Co., Ltd., Calcutta; and C. McDonald & Co., of Bombay and Scotland. He started a Syndicate, the Bombay Mining and Prospecting Syndicate in connection with some of the most prominent men in Bombay, with the object of smelting aluminium, in India, having disco-

vered a promising deposit of Bauxite or aluminium ore within a mile of Katni in the Jubbulpore District. Mr. Dutt has never concerned himself in any agitation connected with politics, and is a thoroughly loyal subject of the British Empire. He is married and has two sons.

Mr. D. GHOSE, Bar-at-Law, Jubbulpore. Born at Calcutta in the year 1859, and educated at the Hindoo School, and General Assembly's Institution (now Scottish Church College), Calcutta. For about a year he was a student in the Sibpore Engineering College. In 1880, he went to England and studied at Lincoln's Inn and University College, London, and was called to the Bar in 1883. He returned to India the same year and was enrolled an Advocate of the Calcutta High Court where he practised for five years, and then transferred his practice to Jubbulpore in the Central Provinces where he has since remained. While at Lincoln's Inn Mr. Ghose carried off the Exhibition scholarship of 100 guineas. He is a member of the Bar



Mr. D. GHOSE.

Association of Jubbulpore and the Central Provinces.

Mr. ARTHUR GIFFORD, M.I.M.M., Superintendent, Mysore Gold Mine, Mysore State. Born in Spain in the year 1873 and educated

at the Bristol Grammar School, Devon County School, and at the Camborne School of Mines. On completing his education he went to South America, where he was engaged for some years as Assistant



Mr. A. GIFFORD.

on the mines at that time under the management of his brother. In 1900, he was taken into the service of the Mysore Mines and came out to India with the appointment of Assistant Superintendent. In this capacity he worked till 1904 when he was appointed to his present position of Superintendent. Mr. Gifford is a good sportsman, and while at school was noted as a runner, carrying off several cups. He has also won prizes at Tennis and Billiards. He is a member of the Institute of Mining and Metallurgy, London.

Mr. HENRY JOHN GIFFORD, Superintendent of the Champion Reef Mine, Kolar Gold Fields, Mysore State. Born in South Africa in the year 1864 at the Mines of the Cape Copper Co., where his father was Assistant Manager. He went to England in 1869, and five years later to Spain, where he resided for two years on mines managed by his father. Returning to England he was educated at Aske's Schools, of the City Guilds, Hatcham, London, where

he gained a scholarship, and later took special courses for Chemistry and Engineering.

He gained practical experience in mines in Cornwall, and then in Italy and on the Continent, first at the Ponte di Nossa Zinc Mines for six months, then for two years at the Pestarena Gold Mine, and later for three years as local Manager of the Val Toppa Mine and Works, belonging to the Pestarena Company.

He went to South America in 1888, having been appointed Superintendent of the Ouro Preto Gold Mines of Brazil.

He held this post for sixteen years, and during that time was also Consulting Engineer to other mines, under the management of Messrs. John Taylor & Sons, of London, for whom he also inspected and reported on various mining properties.

For the last two years he has held his present appointment as Superintendent of the Champion



Mr. H. J. GIFFORD

Reef Gold Mining Co. of India, Ltd., at the Kolar Gold Fields, Mysore.

He is a member of the Institute of Mining and Metallurgy and member of the Institute of Mining Engineers, England.

The Hon'ble Mr. **HARKISHEN LAL**, Bar-at-Law, Banker, Lahore, is a graduate of the Punjab University where he greatly distinguished

himself. After taking his degree he was sent to England as a State scholar to continue his studies at the Cambridge University, where he again graduated, passing all the Examinations for the Bar, but was not at this time called. Mr. Harkishen Lal returned to India in 1891 and was appointed to the post of Assistant Professor of Mathematics and Economics at the Government College, Lahore. The position, however, did not accord with his energetic disposition. He decided therefore to return to the legal profession, and to win his diploma he returned to England, where in January, 1892, he was called to the Bar. Again coming out to India he settled at Dera Ismail Khan in the North-Western Frontier Province and commenced practice. He found, however, that there was not sufficient scope for him in this out of the way and backward centre, and he removed to Lahore, the capital of the Punjab, in 1893. Here he found a congenial field and added to his professional avocations the appointment of Examiner in various subjects in the Arts and Law faculties. While practising law he came to the front and obtained a wide practice, but the ground of the law courts did not satisfy his natural bent towards a wide field for his activities. He had already, while a practising Counsel, worked in connection with the Punjab Mutual Hindu Family Relief Fund and also organized and started the Punjab National Bank, Ltd.; the Bharat Insurance Company, Ltd.; the Punjab Publishing and Stationery Company, Ltd.; and the Lahore Spinning and Weaving Mills, Ltd. These enterprises proved a great tax upon his time, and the work in connection therewith increasing he was required by his co-workers to devote his whole attention to the concerns with which he was connected. Accordingly in the year 1899 he definitely relinquished the practice of his profession and entered the commercial world. His achievements in this field have been brilliant, and though he has been hampered by less enlightened people in his efforts for the public good in his native Province, he has successfully encountered and overcome the obstacles placed in his way. Mr. Harkishen Lal is a man of great

energy and resource, which has shown itself in other spheres of action besides law and commerce. In politics he distinguished himself



The Hon'ble Mr. HARKISHEN LAL.

by carrying to a successful issue the two sessions of the Indian National Congress which were held at Lahore in 1893 and 1900 respectively. He has been the right hand man of Sardar Dyal Singh Manjith'a, the well known Sikh Rais, Jagirdar, the Punjab millionaire, who is famous for his munificent charities and public spirit. It was due to Mr. Harkishen Lal that Bradlaugh Hall, Lahore, where the 16th session of the Congress was held, was built. In the unrest in the Punjab in 1907 Mr. Harkishen Lal worked hard to bring about good will between the people and the Government. Mr. Harkishen Lal is Vice-President of the Branch of the Indian Association at Lahore, and one of the trustees of the *Tribune*, a daily newspaper published in the Punjab. He is the Chairman of the Board of Trustees of the Sardar Dyal Singh Manjithia Library and College Trust, for which the late Sardar left property and cash worth lakhs of rupees. He is prominent in the cause of social reform, and recommends inter-marriage between Indian castes and the abandonment of restrictions on dining together. He has much interested himself in education, on

which he places great reliance in raising the people of India to an equality with more advanced races. His services to the country have been acknowledged by the Government of India who have honoured him with a seat in the Punjab Legislative Council

Mr. HIRJEE NOWROJEE HIRJEE, Advocate, High Court, Upper Burma, Mandalay, was born in 1856 at Calicut on the Malabar Coast where his father, Nowrojee Hirjee, was in business as a merchant. He was educated at the Christian Brothers' School and the Government School in the same town. He proceeded to Burma about the year 1878 and at first turned his attention to business, establish-



Mr. H. N. HIRJEE.

ing himself as a Broker at Rangoon. Subsequently he carried on business as an Import Merchant. About the year 1884, having previously studied the law and passed as an Advocate, Mr. Hirjee commenced the practice of the legal profession at Rangoon, and three years later proceeded to Mandalay, where he is at present the senior practising Advocate at the Bar. He was selected by the Government as a Municipal Commissioner in 1890 and served till the elective system of representation was introduced in 1896. Since then he has stood for election

on several occasions and has been invariably elected by the European voters of Mandalay. He is the Secretary of the Mandalay Bar Society and is a member of the Committee of Inspection of the Leper Asylum, appointed by Government. Mr. Hirjee has taken a leading part in all public movements and continues his interest in these to the present day, a recent appointment being that of President of the Committee for the relief of distressed persons when plague was rampant in Mandalay, of which Committee he is still a member. He has practically settled down in Burma which he has made his home. His grandfather, Maneekjee Hirjee, rose to be the Prime Minister of the Raja of Coorg, before that State was annexed by the British. His grandfather lost his life by being murdered on suspicion of having assisted the British just before the war with Coorg, and his son, Nowrojee Hirjee, then an infant, who had lost his inheritance by the war, was maintained and assisted by the British Government till he attained his majority. Mr. Hirjee and his family are still respected in Calicut as they are in Burma, although for thirty years he has been absent from his native place.

Mr. MANECKJEE NOWROJEE HIRJEE, Advocate, Mandalay, is



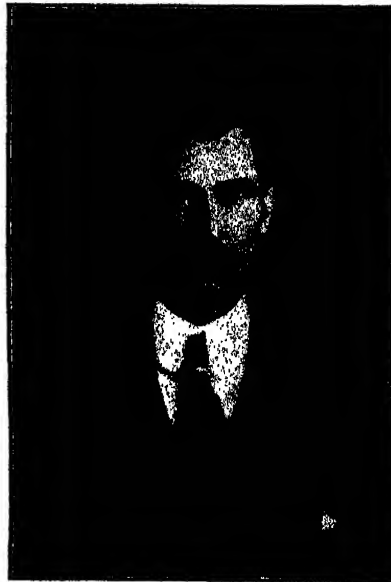
Mr. M. N. HIRJEE.

the son of a merchant of Calicut on the Malabar Coast of India, where he was born. He was educated at Malabar, and settled in Burma about the year 1887. He at first engaged in mercantile pursuits at Rangoon, and for a time was employed as Superintendent in charge of Saw Mills. He also carried on business as a Contractor. During a portion of this period he studied Law, and passing his examination at Rangoon was enrolled as an Advocate on 6th July, 1889. Since that time he has practised in the Courts of Upper Burma, establishing his residence at Mandalay where he has a large and flourishing practice.

Mr. ALEXANDER HODGEN, Chief Mechanical Engineer, Government Harness and Saddle Factory Cawnpore (retired), was born in 1864, and educated at Calcutta. His wife is the daughter of Mr. W. G. Howatson, Manager and Chief Accountant, Bank of Upper India. Having served five years' apprenticeship in Calcutta, Mr. Hodgen went to sea in the employ of the B. I. S. N. Co., with whom he remained six years, afterwards joining the tramp steamer *Kentiggen*, in which he served seven years. He was two years in the Ceylon Steam Ship Company, serving on the *Lady Havclock*. In each case he served as Chief Engineer. In 1901 he joined the Government Harness and Saddle Factory in Cawnpore as Mechanical Engineer, subsequently rising to Chief Engineer. Mr. Hodgen is one of the examiners of the Board of Examining Engineers for the Boiler Act. He has now retired from Government service to enter commerce.

Mr. KAIKHOSRU HORMUSJEE JUDGE, B.A., LL.B., of the Bombay University, and a Solicitor of the High Court of Judicature at Bombay, was born in the year 1871, and educated at St. Xavier's College in the same town. He took his B.A. degree at the age of twenty; his LL.B. at the age of twenty-three, and six months later passed out as a solicitor of the High Court, being articulated to Messrs. Little & Company, Government Solicitors, Bombay. He was one of the leading speakers at the College Debating

Society, and was the Vice-President of the College Literary Union started by the late Revd. Father Bochum, S.J. During the period of his articleship, he was a contributor to the *Times of India*, and contributed to that paper many literary, historical and descriptive



Mr. K. H. Judge.

articles. He left Bombay in 1898 and settled in Secunderabad, where he has continued to practise ever since, and where he commands a large and lucrative practice. Mr. K. H. Judge is an all-round sportsman, being a good cricketer, a good tennis player, a good rider and a good shot. He represented the Parsees in several representative cricket-matches, and played in the famous Parsee Cricket Team against the "Presidency" at Poona in the year 1894. He is the second son of Mr. Hormusji Dadabhoy, retired judge of the Small Cause Court of Bombay.

Mr. JULIUS KELLERSCHON, Resident Engineer for the Carnegie Steel Company of Pittsburg, Pa., U. S. A., Nagpur. Born in San Antonio, Texas, U. S. A., in the year 1858. At the age of 11 years sent to the High School at Coblenz on the Rhine, Germany, and later to the College of Mines at Berlin. In 1882 returned to the United States and as special student spent several months at the Houghton School of Mines, Michi-

gan, taking up field and mine surveying. Then proceeded to Crystal Fall, Michigan, working as chemist and surveyor for several Mining Companies, and partly also on his own account at that centre of iron ore production. In 1893 went to Chicago, Illinois, and engaged in the manufacture of an explosive made of ammonium nitrate, which was used by Angus & Gindele, a firm of contractors for a section of excavations on the Chicago Drainage Canal. In 1894 he took charge of the Laboratory at Negaunee, Michigan, for Corrigan, McKinney & Co., ore brokers at Cleveland, and operating a number of mines in the Lake Superior District. In 1896 he was engaged by the Oliver Iron Mining Company, the Mining Department of the Carnegie Steel Company, at first at Ironwood, Michigan, later at their offices in Duluth, Minnesota. While at the latter place he was mostly employed in reporting on properties in Ontario, British Columbia, Cuba, Washington Boundary District and other parts of the



Mr. J. KELLERSCHON.

United States. In 1906 he was sent to India to represent the Company as Resident Engineer and develop mining properties acquired through him, principally in the Central Provinces. Mr. Kellerschön is a member of the Student's Club, Rheno-Guestphalia

in Berlin, and a member of the Central Provinces and Berar Mining Association. He is also a member of the Mining and Geological Institute of India.

Mr. G. KRISHNAMACHARIAR, B.A., B.L., Government Pleader and



Mr. G. KRISHNAMACHARIAR.

Public Prosecutor, Hyderabad. Born, October, 1867, at Maunargudi, Tanjore District, Madras Presidency, and educated at the Native High School, Maunargudi, St. Joseph's College, Trichinopoly, and Presidency College, Madras. He took his B.A. degree from St. Joseph's College and B.L. degree from the Presidency College. For one year he studied law with Mr. Eardley Norton at Madras. He was enrolled a Vakil of the High Court in March 1890 and opened practice at Hyderabad both in H. H. the Nizam's and the British Courts. In 1904 he received the appointment of Government Pleader and Public Prosecutor from Sir David Barr, then British Resident of Hyderabad. He also appears for H. H. the Nizam in all important cases. Mr. Krishnamachariar is Secretary to the People's Association, Secunderabad, and representative of the Indian National Congress at Secunderabad. He has been President of the Bar Association in Hyderabad Presidency for the past two years. He also has the honour to be a member of His Highness

the Nizam's Legislative Council. He is a member of the Nizam Club. He appeared for H. H. The Nizam's Government in the Mint Commission which sat to inquire into the charges against the Mintmaster. He is a non-official member of the Central Relief Committee of Hyderabad.

Mr. C. KRISHNA MURTI, Advocate, Chief Court of Mysore, at Bangalore, was born at Bangalore on the 18th October 1862. His grandfather was first Hindu Law Pundit of the late Adalat Court in Mysore, from its constitution in 1832 till it was replaced by the Judicial Commissioner in Mysore about the year 1860. Mr. Krishna Murti was educated at the Wesleyan Mission High School at Bangalore. His school career was brilliant, he having carried off the first prize in almost all his classes. He was admitted as an Advocate of the Chief Court of Mysore on the 8th February 1886. By his amiable disposition and keen commonsense, he has won the confidence of the liti-



Mr. C. KRISHNA MURTI.

gant public, so much so that in almost all cases of importance he is engaged by one side or the other. He is a Municipal Councillor of moderate views, and takes much interest in all matters concerning the public.

Mr. J. KRISHNA RAU, B. A., Barrister-at-Law, was born in Jangamkote, Kolar District, Mysore Province, on the 29th January 1869. He comes of a well-known and respectable family, the members of which served with distinction

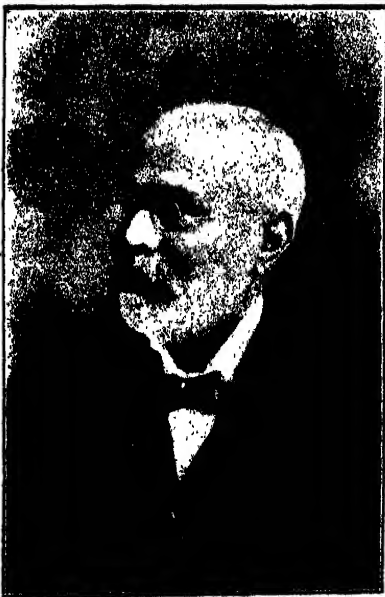


Mr. J. KRISHNA RAU.

both in Mysore and Madras. His ancestors held very high offices in the early Eighties under Colonel Read, and Sir Thomas Munro, a distinguished Governor of Madras. In recognition of eminent military services rendered to the British by his great-grandfather Krishna Rau, Sir Thomas Munro appointed the said Krishna Rau as his Chief Native Assistant in the Baramahal, Ceded and other Districts, and, after his death in 1800, got back for his eldest son Venkata Rau, several Inam villages in the Mysore Territory that had belonged to the family and had been confiscated by Tippu Sultan, and gave his youngest son Ramachandra Rau the Head Sheristardary of the Board of Revenue, Madras. At the same time two villages in the Madras Presidency were also granted as Jaghirs in the name of the said Ramachandra Rau, for the valuable help rendered by the family to the British, during the troublous days of their encounters with the "Tiger of Mysore."

Mr. J. Krishna Rau graduated in Arts in March 1889 from the Madras Christian College, where he was a Tutor in History till 1894. Having passed the First Grade Pledership Examination of the Madras High Court in March 1894, he practised as an Advocate in Bangalore till 1899 when he went to England. He was called to the English Bar from Gray's Inn, London, on 27th January 1902, and has ever since been practising in the Madras High Court. He has visited several other European countries, the United States of America, and the Dominion of Canada, and has thereby acquired a considerable knowledge of the West.

Mr. JOHN CHARLES SKILLERN LAWRENCE, B.A., LL.B., of Bangalore in Mysore, Advocate, Public Prosecutor and Notary Public, is an instance of how a hardworking lawyer can succeed in life. By dint of perseverance Mr. Lawrence has risen to the position he at present occupies. He was born at Bellary in the Ceded Districts and



Mr. JOHN C. S. LAWRENCE.

educated at first in the Provincial School there. His parents having gone to Bangalore and settled there, he entered the Central College (then High School) where he was the first graduate in arts, heading the list for

the whole of the Mysore Province. He next graduated in Law and then practised as a pleader for a short time, when Sir James Gordon, the then Judicial Commissioner, appointed him a Munsiff, and afterwards a Magistrate, to the city of Mysore. But not caring for the service, he retired and went back to the Bar where he has done some good work, and has been able to educate all his four children, one girl and three boys at the English Universities. His father, the late Mr. John Lawrence, was the first Public Prosecutor appointed under the new Criminal Procedure Code of 1864 in the Mysore Province, and the present Mr. Lawrence succeeded to the office in 1886, and was made a Notary Public in 1892. He edited the Indian Evidence Act with commentaries in Kanarese, and the book was quickly sold in the Province. His eldest son is a Civil Engineer educated at Owen's College, Manchester. His second son, who graduated at Cambridge, is a practising Barrister of the Inner Temple, and his third son is a medical practitioner, also educated at Owen's College.

Mr. HENRY MILLARD LÜTTER, Government Prosecutor and Advocate, Mandalay, Upper Burma, was born at Moulmein, Lower Burma, in 1860, and there received his education. He was educated for the legal profession and studied for the local Bar, passing out in 1884. For a short time he practised in the cities of Moulmein and Rangoon, but in the year 1889 he transferred his practice to Mandalay, which has been the sphere of his activities ever since. The appointment of Government Prosecutor was established in 1891, and Mr. Lütter was the first holder of the position, which includes also the appointment of Government Advocate in Upper Burma. In accepting Government service in these capacities, Mr. Lütter has not relinquished his private practice but continues to carry on his profession as an Advocate. He is also interested in public affairs and is a member of the Municipal Committee of Mandalay. He has taken up volunteering and holds a commission as Captain of

the Upper Burma Volunteer Rifles. The Masonic craft also has a member in Mr. Lütter, who has passed as District Grand Junior Warden in the Burma District, and is also P. P. Z. of the Chapter. Mr. Lütter has



Mr. H. M. LÜTTER.

also devoted attention to literature and is the author of the "Manual of Buddhist Law" and "Handbook on the Law of Gambling" for Burma.

Mr. JYOTIS CHANDRA MITTRA, Bar.-at-Law, Nagpur, Central Provinces. Born at Calcutta in the year 1867 and educated at the Oriental Seminary and Presidency College. He proceeded to England in 1884 and studied at Middle Temple, and in 1889 was called to the Bar. In the same year he returned to India and established himself in practice at Nagpur. He carried off the Studentship of £100 for Roman Law and several other minor prizes. Mr. Mittra is a grandson of the late Mr. Peary Chand Mittra, the well-known Bengali author and formerly Member of the Bengal Legislative Council, who was the author of "Ramaranjika," a novel dealing with female education, "Abhedhi," a spiritual novel, "Adhyatmika," a novel of general moral purpose, and other works. His most famous literary effort, however, was "Alaler Gharer Du-

lal;" or, "The spoilt child," a novel dealing with social matters, which created a great sensation at the time of its issue from the Press.



Mr. J. C. MITTRA.

being the first novel in the Bengali language. He was also a well-known contributor to the Calcutta Review.

Mr. B. NAGAPPA, Barrister-at-Law. Advocate of the High Court of Madras and of the Chief Court of Mysore, was born in Bangalore in April 1877; educated at the London Mission High School; passed first class in the Matriculation Examination of the Madras University in December 1891, and won a scholarship; joined the Central College; from there he passed a Language Branch of the B. A. Degree Examination in 1896, having won a scholarship after passing the F. A. Examination in 1893 with credit. In 1899 he entered Gray's Inn and under distinguished tuition read for the Bar. He was called to the Bar in 1901. In the Final Examination for call to the English Bar, he was placed in the first class and was awarded a Certificate of Honour from the Council of Legal Education. He won golden opinions from several eminent jurists. Among those who have commented favourably upon his exceptional ability are Mr. Montague Lush, K.C.,

who, remarking on his legal attainments, states: "He possesses exceptional ability." Dr. A. Underhill, the Reader of the Law of Real and Personal Property, states: "In the recent Final Examination he passed with the highest credit, being placed with only four others in the first class or Honours list." Mr. James Scully, the Reader in Equity, states: "He has distinguished himself by great diligence and intelligence as a student, and the possession of these qualities in a high degree he has further proved at the recent Final Examination in which he obtained the highest marks in Equity, and succeeded in getting in all subjects the high honour of a first class." Dr. W. Blake Odgers, K.C., states: "To get a certificate of honour means a man has legal acumen and



Mr. B. NAGAPPA

accuracy." Mr. J. W. Macarthy, his tutor, states: "He has a keen comprehension of legal points and there is great clearness and force in his arguments." Dr. J. Cawley Blake states: "Speaking as one who knows the standard required for this I can say that it is exceptionally high (*viz.*, obtaining first class) and very few men attain it. A host of other equally striking remarks were made by all the Readers and Assistant Readers to the Inns

of Court, and the Bachelors of his Inn granted him a special certificate for possessing "exceptional abilities" and awarded him a prize of £50.

After his return to India in 1901 Mr. Nagappa was enrolled as an Advocate, High Court, Madras, and worked with the Honourable Mr. J. P. Wallis, then Advocate-General and now a Judge of the High Court, Madras, and has rapidly obtained a good practice in Mysore and its surrounding districts. He was nominated to the Mysore Legislative Council in 1907, and has been a strenuous worker ever since; and is one of the non-official members who received the special thanks of H. H. the Maharajah of Mysore in passing the contentious "Village Officers' Bill." He has been largely instrumental in founding, and is the Vice-President of, an Association known as the "Vokkaligar Sangha," whose object is to spread general education among the peasants, and the improvements of their social and intellectual status. He presided at the second conference opened by the Maharajah in his Capital in 1907.

Mr. Nagappa is a splendid type of the effect of Western education upon an Indian of superior intellectual abilities; and his keen interest in the industrial development of his country is a proof of the good use to which he is applying his cosmopolitan educational advantages.

Rao Bahadur VASUDEO RAMKRISHNA PANDIT, M.A. (Cantab.), Nagpur. Born at Burhanpur in the year 1874. Educated at the Government High School and College, Jubbulpore, and Hislop College, Nagpur. He took the B.A. degree at the Calcutta University in 1894 and afterwards proceeded to England, taking his degree in the Law Tripos of 1898 at Cambridge. In the same year he was called to the Bar at the Middle Temple. He held the Ouseley Scholarship for Oriental Languages from the Imperial Institute for two years. He returned to India in 1898 and ever since that date has practised as an Advocate in the Judicial Commissioner's Court, Central Provinces. On several occa-

sions he has officiated as Government Advocate. In 1900 he worked hard as one of the two Secretaries to the Indian Famine Relief Charitable Fund, C. P. branch, and for the past eight years he has been a member of the Nagpur District Council, and from 1905 Vice-Chairman to the same body. In 1904 he was appointed a Fellow of the Allahabad University and is a member of the Faculties of Arts and Law, and member of the Syndicate of the same University. He has also been an Examiner for the degree of LL.B., Allahabad University, and for several years examined candidates for the



Rao Bahadur V. R. PANDIT.

Law Certificate (Pledership) Examination, conducted by the High Court of the Central Provinces. He is a member of the Royal Asiatic Society, and was Secretary to Queen Victoria's Memorial Fund for the Central Provinces. In January 1907 for his public services he received the distinction of the Kaiser-i-Hind medal and the title of Rao Bahadur. He is now Secretary to the Provincial Congress Committee, as constituted in accordance with the provisions of the constitution framed at Allahabad in April 1908. He was an important witness examined by the Royal Commission on Decentralization. The Rao Bahadur has a literary

turn and translated the third verse of the National Anthem into Mahratti at the time of Queen Victoria's Jubilee. He comes of an old and distinguished family who were public servants and revenue collectors under the old native régime, and thereafter held important posts under the British Administration. His grandfather rendered valuable services to the British Government during the Indian Mutiny, and his father Rao Bahadur Ramkrishna Rao Pandit is at present the Deputy Commissioner of the Betul District of the Central Provinces.

DR. NASARWANJI NOWROJI PARAKH, L.F.P. (Glasgow), L.S.A. (Lond.), Physician and Surgeon. Dr. Parakh comes of an old-established Parsee family and was born at Surat in the Bombay Presidency. He obtained his first education at the Grant Medical College, Bombay. Being left without means after his father's death, he had to work hard, and he adopted the theatrical profession in order to support himself during his course of studies. His success in the theatrical line won him a name still remembered in Bombay and Calcutta and other parts of India, and brought him a few thousand rupees with which he retired from the stage at Karachi in the year 1880. He then proceeded to England and Scotland to complete his medical studies, and he gained diplomas in both countries. In 1882 he returned to India and practised with much success for two years in Bombay, but in 1884 decided to settle at Rangoon, Burma, where he was not long in building up a practice which subsequently became a very flourishing one. He has, on several occasions, held the post of examining physician in midwifery and sick-nursing to the Dufferin Hospital at Rangoon. Dr. Parakh's family is well known in the Bombay Presidency. His father was the first Parsee gentleman to be appointed Deputy Collector and Magistrate in the Presidency, and his uncle was Surgeon-Major in the Indian Medical Service and had the honour of being the first Parsee M. D. He saw active service in the Indian Mutiny, and is now

retired and living in London. Dr. Parakh's brother is a retired Lieutenant-Colonel and was the first Parsee to receive the honour of being appointed physician to the Sir Jamsetjee Jeejeebhoy Hospital, and subsequently, before his retirement, he was appointed surgeon to the Goculdas Hospital. Dr. Parakh's daughter has also distinguished herself. She was placed first on the list at the Entrance Examination of the Calcutta University, and two years later took the F. A. degree at the same University in the first class. She passed her B. A. degree and at the end of a further two years took her M. A. degree. Dr. Parakh is a



DR. N. N. PARAKH

prominent Freemason, and holds the position of Past Deputy District Grand Master of Burma. During the Coronation he held the past rank of Grand Deacon of England.

Mr. KRISHNA RAO PHATAK, Pleader, High Court, Central Provinces. Born at Ratnagiri, Bombay Presidency, February 26, 1850. Educated at the Marathi 2nd School and the High School in his native town. Passed the entrance examination of the Bombay University in November 1870, and joined the Elphinstone College, but for want of means could not take an extended course at that institution. He left in August 1871 and went to Nagpur in search of employment.

which he secured as an Examiner in the Deputy Accountant-General's Office. He held this post for five years when he was promoted to



Mr. KRISHNA RAO PHATAK.

Auditor on increased pay. Meanwhile he had studied law, and at the end of 1876 he passed the Local Pleader Examination. In the following year he resigned the service and commenced practice as a Pleader, which he continues to the present day, having established himself as one of the leaders of the Nagpur Bar. Mr. Phatak has a literary turn in matters relating to the law, and has published the Central Provinces Law Report Digest in 2 Volumes, and has annotated in Marathi the Central Provinces Tenancy Act which has run through five editions. He has also published the Central Provinces Boiler Inspection Act with rules. Outside his profession he has busied himself with industrial matters, and owns a Flour and Saw Mill at Nagpur, also a small Cutlery Factory. He is also Managing Director of the Palgaon Manufacturing Company, a post he has held since 1889. The Company has had a successful career for which Mr. Phatak is greatly responsible. In recognition of his services the shareholders of the Company have formed a scholarship in his honour named "The Krishna Rao Phatak Scholarship" to be held by a student at the Victoria Jubilee Technical Institute at Bombay. Mr.

Phatak has also devoted attention to public affairs, he is a Municipal Commissioner for Nagpur, and a member of the Committee of the Niell City High School and of the Committee of the R. B. Bapurao Patwardhan High School, at Seetabaldi, Nagpur. He was selected as one of the Secretaries to the C. P. and Berar Exhibition held at Nagpur in 1908.

Mr. SURYAKANTA RAMDAS, B.A. (Cantab.), Barrister-at-Law, Nagpur, Central Provinces. Born at Bombay in the year 1879. Educated at Fort High School and St. Xavier's College in his native city. Went to England in 1899 to Christ College, Cambridge, where he took his degree in 1903. Entered at Middle Temple where he was called to the Bar in the same year. On being called he returned to India and commenced practice at Nagpur where his father is also practising. Mr. Suryakanta is a nephew of Mr.



Mr. S. RAMDAS.

Karsondas Chabildas, late Presidency Magistrate of Bombay, and grandson of Mr. Chabildas Laloo-bhoy, senior partner of Messrs. James Mackintosh & Co., and a well-known citizen of Bombay.

Mr. M. C. RANGIENGAR, Advocate and Member of the Mysore Legislative Council, Mysore, born in

1861. Graduated from the Central College, Bangalore, in 1882. Was enrolled an Advocate of the Chief Court of Mysore in 1887. On the

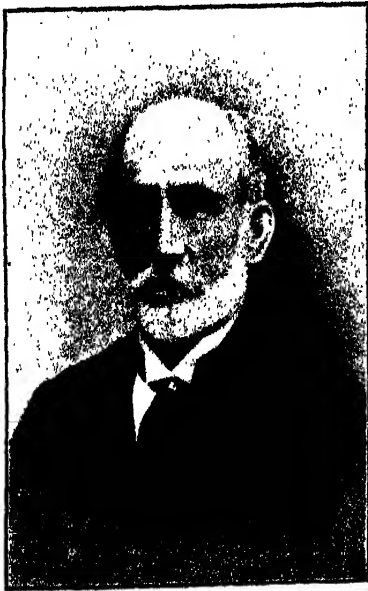


Mr. M. C. RANGIENGAR.

establishment of the Mysore Legislative Council in 1907, was one of the first non-official Members appointed.

Mr. THOMAS RICHARDS, Superintendent, Nundydroog Mine, and Chairman of Messrs. John Taylor & Sons' Committee on the Kolar Gold Field. Born at Tavistock, Devonshire, England, in the year 1844 and educated in his native town. He left school at the age of sixteen, and worked as a miner at the Devon Great Consolidated Copper Mines near Tavistock, where two years later he was made an assistant agent. He remained with this Company altogether eight years. In 1868, when he was twenty-four years of age he proceeded to Chili, South America, to supervise the erection of concentration plant for the treatment of copper ores, which occupied about 12 months. He remained in South America seventeen and half years, during which period he had charge as manager of the Panulcillo copper mines for 4½ years, and of the Copper Mines owned by Mr. Charles Lambert, the well-known copper

smelter of England, for 12 years. He subsequently spent four and a half years in Venezuela, first in charge of the copper mines and smelting works, and then as general agent of the Quebrada Railway Lands & Copper Company, Ltd. He left South America at the end of 1890, and for the next four years was employed in making trips of inspection to gold and silver Mines in the United States and Mexico. For about 9 months of this period he managed a gold and silver mining property at Bacis in the State of Durango, Mexico. He was appointed Superintendent of the Nundydroog Mines on the Kolar Gold Field in August 1894. Mr. Richards studied chemistry, mineralogy and surveying in the evening classes of the Miners' Association of Devon and Cornwall, and took a special course of assaying under Mr. Richard Pearce at Truro, Cornwall. He has been a Member of the Institution of Civil Engineers, London, since January 11th 1887, a Member of the American Institute of Mining Engineers since 1892, and a Member of the Institute



Mr. THOMAS RICHARDS.

of Mining and Metallurgy, London, from its inception. He takes a keen interest in sport, and tennis is his chief out-door recreation. Mr. Richards is a prominent Freemason, and at present holds the position of Grand Superintendent of

Southern India, under the Scottish Constitution. He was one of the founders of the Local Lodge, "Southern Cross," of which he has been Worshipful Master on two occasions.

Dr. SAN C. PO, M.D., Municipal Commissioner, Station Road, Bassein, Burma, is by nationality a Karen, and was born at Bassein on the 4th October 1870. He was edu-



Dr. SAN C. PO.

ated at the American Baptist Mission School, Bassein, and thereafter proceeded to America to continue his studies, where he pursued a four-years academic literary course. He then took up Medicine at the Albany Medical College of the Union University of the State of New York. At the expiry of his University course he took an eight-months post-graduate course in New York City. In 1893-4 he visited the World's Fair at Chicago and other centres of interest in the States, and also toured Canada, England and Scotland. He returned to Burma in 1894, and in the following year joined the Burma Medical Service as Resident Medical Officer of the Bassein Hospital, where he remained for about five years. He then served as Civil Surgeon in two Districts, but in 1903 resigned the service and retired to practise at Bassein at the wish of the residents of that town.

In connection with the private practice he established at Bassein he has started his own druggist and medical hall, importing all medical requirements for his own use as well as for the supply of the public generally. This establishment is on a sound financial basis and has every prospect of increasing greatly in importance. Dr. San C. Po is proprietor of the "Karen National News," a weekly publication. This is the only secular paper issued in Burma and has the largest circulation of all the Karen newspapers. It has been in existence for 20 years. Dr. San C. Po was the first medical man outside of the service to be appointed plague inoculator in Burma. This was done at the wish of the people of Bassein.

Mr. GANPAT RAO LAKSHMAN SUBHEDAR, B.A., Bar-at-Law, Nagpur, Central Provinces. Born at Saugor, C. P., in April 1876, and educated at Saugor High School, Rajkumar College, Nowgong, Bundelkhand, and Muir Central College, Allahabad, where he took his B. A. degree in 1898. He then proceeded to England and entered Lincoln's Inn, where he was called to the Bar in 1902. He was presented to His Majesty King Edward VII, at a levee held in St. James' Palace on 21st April 1902. In the same year he returned to India and was enrolled as an Advocate of the High Court of Judicature, Bombay, and then as an Advocate of the Judicial Commissioner's Court, Central Provinces. He practised for some time at Nagpur and entered the Provincial Judicial Service as Subordinate Judge, Nagpur, in 1903. He resigned the appointment in 1907 and has rejoined the Bar at Nagpur, where he still continues to practise. In the famine of 1908 Mr. Ganpat Rao was the Honorary Secretary of the Provincial Branch of the Indian Famine Charitable Relief Fund. Mr. Ganpat Rao belongs to the well-known Subhedar family of Saugor and is a great-grandson of Rao Vinayak Rao Sahib, who was the Prime Minister and Commander-in-Chief of the Mahratta rulers of the State of Saugor till the territory was ceded to the British Government in 1818. Rao Vinayak Rao

Sahib enjoyed a pension of Rs. 48,000 per annum from the British Government. His son Nana Ganpat Rao



Mr. G. L. SUBHEDAR.

Sahib, and grandson Rao Sahib Lakshman Rao Subhedar, also received pensions from the British Government to enable them to maintain the dignity and position of the family. The title of Rao Sahib is hereditary in the family. Both the father and grandfather of Mr. Ganpat Rao rendered valuable services to the British Government as Honorary Magistrate and member of the Municipal Boards. On the occasion of the Imperial Assemblage at Delhi in 1877, Rao Lakshman Rao, Sahib, the father of Mr. Ganpat Rao, was granted a certificate for loyalty and good services.

The Hon. PUNDIT SUNDERLAL, Rai Bahadur, C.I.E., Advocate, of Allahabad, was born in 1857, and is a Nagar Brahmin by caste. He was educated at the Muir Central College, Allahabad, and passed the B. A. Examination of the University of Calcutta held in December 1880; also the examination prescribed for admission as Vakil of the N.-W. P. High Court, held in January 1880. He was enrolled as a Vakil of the N.-W. P. High Court on 21st December 1880, and practised in the Courts of the Allahabad district for two years, and joined the Bar of the Allahabad High Court early in 1883.

He quickly acquired a large and lucrative practice, and in 1888 was appointed a member of the Council of Law Reporting of the N.-W. P. High Court. In 1893 he was appointed a member of the Board of that Court to represent the Vakils, and three years later he was one of the first batch of Vakils enrolled as Advocates of the Court. In December 1888 he had been appointed a Fellow of the University of Allahabad, and on the re-constitution of the University Senate under the Indian Universities Act of 1904, he was re-appointed. He is a member



HON. PUNDIT SUNDERLAL.

of the Faculties of Arts and Law, and has been a member of the Syndicate since March 1895. In January 1906 he was appointed Vice-Chancellor of the University, and acted as such up to the end of 1907. Was elected to represent the University in the Legislative Council of the United Provinces in November 1904, was re-elected in December 1906, and again on the 12th March 1909.

The Hon. Pundit Sunderlal has always taken a keen and active interest in the work of the University, and in education generally, and the Lieutenant-Governor of the United Provinces (Sir J. P. Hewett) in his Convocation Address in November 1908, spoke in the highest terms of the work he had done in the cause of education. He is one of the Secretaries

of the MacDonnell University Boarding House at Allahabad, and, together with the Hon. Pundit Madan Mohan Malurya, took a prominent part in the collection of funds for building the said institution. He is also President of the Allahabad Educational Society.

Although he has a large practice, and holds a leading position at the Allahabad Bar, the Pundit has found time to devote to public matters, and is a member of several Societies—among others, of the Royal Society of Arts, Manufactures, and Science, London. He owns one of the largest private libraries in the United Provinces. He was made a Rai Bahadur in 1905 and created C. I. E. in the following year. He took a prominent part in the establishment of the University School of Law. In May 1909, he appointed to act as first additional Judicial Commissioner of Oudh, and a few days later on as the full Judicial Commissioner of that Court for a latter over five months during the absence on leave of Mr. Chamier and Mr. Evans.

Mr. HAROLD CHAMIER-TRIPP, Barrister-at-Law, Secun-



Mr. H. CHAMIER-TRIPP.

derabad, born at Coimbatore in the year 1879 and educated at Bishop Cotton School, Bangalore, and St. George's Grammar School, Hyderabad, (Deccan), and the Nizam

College, Hyderabad. From the latter institution he matriculated to the Madras University. For two years he pursued a course of reading at the Medical School, Hyderabad (Deccan), proceeding to England at the expiry of this period in 1899. He entered at Middle Temple, and, after the usual course of study, was called to the Bar on the 25th January, 1903. He returned to India for the purpose of pursuing his profession, and commenced practice at Secunderabad, where he settled, and became an important member of the local Bar. His professional engagements have included many important cases. It was Mr. Tripp who defended Lieutenant G. R. Cookson at a General Court Martial held in 1907, in place of the famous Advocate, Mr. Eardley Norton, who was unavoidably absent, and who, it was originally intended, should have conducted the case. Mr. Tripp is a keen sportsman and takes particular interest in lawn tennis and shooting. He is an excellent amateur actor and has taken part in many entertainments and theatricals. He is a member of the Masonic Craft and much interested in all Masonic

matters. At present holding the position of Worshipful Master of Lodge Deccan, No. 1444. For a short time he acted as Vice-President of the Secunderabad Young Men's Christian Association. Mr. Tripp is also a Member of the Bar of H. H. The Nizam's High Court at Hyderabad, where all cases are conducted in the Urdu language. He is an excellent linguist, reading and speaking Tamil and Telugu, and reading Kanarese.

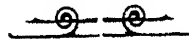
Mr. FREDERICK ALEXANDER CHARLES TRUTWEIN, Advocate of the Chief Court, Bassein. Born in the year 1870, and educated at Rangoon College, which is affiliated with the Calcutta University, of which University Mr. Trutwein is a B. A. He was enrolled an Advocate of the late Judicial Court, Lower Burma, and Recorder's Court, Rangoon, in the year 1892, and in the same year he came to Bassein and commenced to practise in that town. On the formation of the Chief Court in 1900, Mr. Trutwein was enrolled an Advocate of that Court. He is a member of "F" Company of the Rangoon Volunteer Rifles and is

considered a crack shot. He was for two years the best marksman in the Battalion. At the Coronation



Mr. F. A. C. TRUTWEIN.

of King Edward VII he was one of the Volunteers selected to attend the celebration.



Educational.

BALDWIN BOYS' HIGH SCHOOL, Bangalore, the largest Protestant boarding school in South India, was founded in 1880 by the Rev. J. E. Robinson, now Bishop Robinson. The first Principal was the Rev. M. B. Kirk. At the time of founding it was known as the "Methodist Day School" and admitted pupils of both sexes and

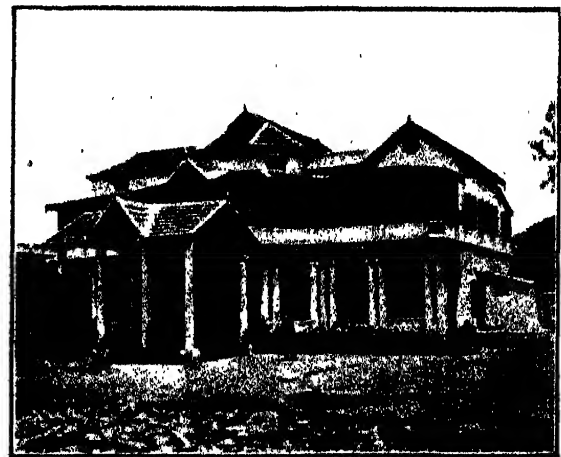


Rev. P. V. ROBERTS.

was housed in rented premises. On the appointment of the Rev. Ira A. Richards in 1881 as Principal, friends in America were interested in the work, and the Hon'ble John Baldwin of Berea, Ohio, U. S. A., was induced to give Rs. 15,000. Property was acquired and the school was named after him. The school soon gained the confidence of the public and it began to prosper,

and with the aid of Government, through Mr. Girdlestone, British Resident, the first building was erected and named Richards Hall, because of the self-sacrificing efforts of Mr. Richards. This building was formally opened on the 3rd October 1888, with Sir Harry Prendergast, British Resident, in the chair. The Rev. W. L. King, D.D., was then Principal. The Rev. W. H. Hollister still further popularised the school by travelling all over South India and placing before parents the advantages of a good school, with a well-managed Boarding Department. During the Residency of the late Sir Oliver St. John the grant-in-aid was withdrawn, so as to enable the Government to try its new scheme of having one central aided school. For six years the school lived without any aid from Government, but was loyally supported by the public, who had the utmost confidence in the then Principal, the late Rev. T. R. Toussaint who was appointed in 1892. Sir William Lee-Warner revoked the plan of his predecessor, restored the grant-in-aid, and gave a liberal building grant towards the cost of erecting a science laboratory. The Lee-Warner Laboratory is to-day one of the best equipped High School laboratories in India. On the death of Mr. Toussaint in 1899 the management

was much put about for a suitable man to succeed him, and the school passed under a cloud for four years. In 1903 a new policy was adopted. The present Principal was placed in charge; the girls were formed into a separate department of their own, and the cloud lifted. The alumni of the school rallied round it and subscribed towards the erection of a Memorial Dormitory, known as the "Toussaint Memorial." The corner stone was placed by Sir Donald Robertson, who in many ways did much to resuscitate the institution. In 1904 the "Toussaint Memorial" was opened by Sir James Bourdillon who gave the school a play ground on the north side of its compound. This is now known as the "Bourdillon Play ground." The next year new premises were acquired on the south, and in March 1907 the Hon'ble Mr. Stuart Fraser laid the corner of a new structure, named after him "Fraser Hall." In November 1907 the Hon'ble Mr



"FRASER HALL" BALDWIN HIGH SCHOOL, BANGALORE.

Williams laid the foundation-stone of Oldham Hall, a three-storied building, named after Bishop Oldham, who has done much to further the interests of the school. There is a very strong and efficient staff of missionaries and laymen, viz., The Rev. P. V. Roberts, B.A. (Classics), Principal, Head-master and Treasurer; Rev. C. F. Lipp, M.A., Vice-Prin-

the confidence of the public that it is courted by those who are in a position to pick and choose." The school is strongly Evangelical Protestant.

The Rev. PRECY VIVIAN ROBERTS was born in Gudular, S.-E. Wynaad in 1874, and is the son of an English planter. Early

in life he came into contact with Americans and had his school training in the school which he now administers. He took to teaching at the early age of sixteen and combined travel with study, so that when he was called to the Head of

tributed £1,000 to the funds of the school. At commencement the school was identified with the Baldwin Boys' School, pupils of both sexes being received at the establishment which was then known as the Methodist Day School. The school was run on this plan until the year 1903 when it was thought advisable in the interests of both establishments to separate the girls from the boys' school. The girls' establishment from this time was managed as an entirely separate organisation under its own Lady Principal, who was at first Miss Montgomery, B.A. The present Principal is Miss E. M. Benthien, B.Sc. The school has at present accommodation for one hundred and fifty scholars and now has one hundred and five pupils. It has accordingly been decided to increase the accommodation, and it is contemplated to add four more rooms to the present boarding establishment and to erect a new two-storied building of ten rooms. A new music room is also in contemplation. The school possesses a fine library and with additions intended will shortly own a thousand rupees worth of books. There is an interesting museum attached. A spacious garden exists for recreation, and the grounds in which the buildings stand measure about five acres. Two interesting



"OLDHAM HALL," THE BOARDING HOUSE OF THE BALDWIN HIGH SCHOOL, BANGALORE.

incipal: Rev. Lee H. Rockey, B.A.; the Rev. A. B. Coates, B.Sc., and J. J. Stevenage, Esq., together with masters and mistresses. One feature of the school, peculiar to it we believe, is the emphasis laid on the large part played in the boarding establishment by the ladies of the staff. Mrs. Roberts, Mrs. Lipp, Mrs. Coates and Miss Toussaint come into personal contact with the boys and play the part of mother and sister. There are all the requisite adjuncts of a first-rate high school, such as a museum, reading-room, library, gymnasium, literary society, and athletic club. Negotiations are on foot to secure a generous swimming bath.

The accommodation consists of four single-storied buildings, four two-storied and one three-storied building. There are six dormitories and quite a number of dining halls, and accommodation for 200 boarders. The school cadet corps is the largest in Bangalore, and to quote the words of Mr. Stuart Fraser in a recent public utterance of his, "the school has so gained

the school six years ago he brought to bear on it, not only the result of book study, but a knowledge of the needs of the English speaking people of India, as well as the systems in vogue in England and America. In 1897 he married the Head Mistress of the Girls' school, Miss Grieveson, to whose efforts and experience, no less than his, is the large prosperity of the school due.

BALDWIN GIRLS' SCHOOL, Bangalore. Founded in the year 1880 by the Reverend J. E. Robinson, now Bishop Robinson. The name of "Baldwin" was adopted in honour of the Honourable John Baldwin of Berea, Ohio, U. S. A., who had generously con-



RICHARDS HALL AND TOUSSAINT MEMORIAL, BALDWIN HIGH SCHOOL, BANGALORE.

literary societies are conducted entirely by the girls, and at these debating, elocution and music are specially developed. There is also

a school paper edited by the girls. The delightful climate of Bangalore where the school is situated is extremely healthy for the children all the year round. Domestic training is not neglected, and the



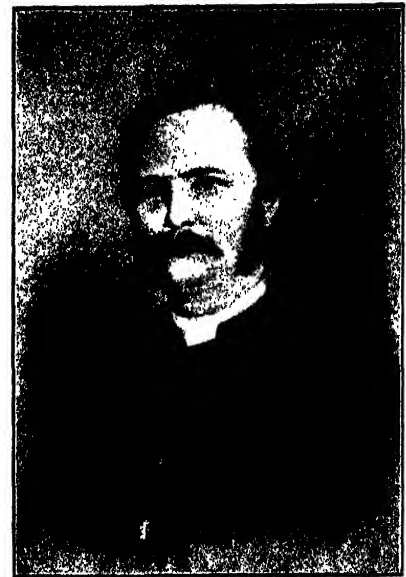
MISS E. M. BENTHIEN, PRINCIPAL,
BALDWIN GIRLS' HIGH SCHOOL,
BANGALORE.

cooking class is a favourite one. Miss Elizabeth M. Benthien, B.Sc., Principal, Baldwin Girls' School, was born in England and taken to America at the age of five where she was educated at public and private schools. Miss Benthien received teacher's training at the State Normal University and other training colleges. She is trained in Latin, French and German and has special training in school music, drawing and elocution. She graduated from Chicago Training School in 1895 and from Dixon College in 1903, and was a student at the University of Chicago for two years. Miss Benthien has twenty-five years of teaching experience, eighteen in America and seven in India, in Kindergarten, Primary, Middle, High School and College work and is a member of the Women's Foreign Missionary Society of the Methodist Church since 1896.

The BISHOP COTTON HIGH SCHOOL FOR BOYS AND GIRLS, Bangalore. This Institution was established by the Reverend Samuel Thomas Pettigrew, Chaplain of St. Mark's Church, Bangalore, in April 1865, with the object of imparting

a sound education on Church of England principles to European and Eurasian children of both sexes. The boys' school was at first located in the building on the High Ground at Bangalore now known as "Westward Ho." The Institution was subsequently removed to a more convenient locality on South Parade. The Reverend S. T. Pettigrew subsequently took over the private school formerly conducted by Miss Williard and established it as a Bishop Cotton Girls' School. The first Warden was Mr. George Reynolds, who was brought out from England, but he resigned the Wardenship in 1867. In 1869, the S. P. C. K. were approached for a grant-in-aid. The upshot was that the S. P. C. K. promised a grant of £250 provided £1,750 was raised by subscription in India. In the same year the Right Reverend Bishop Cotton, Metropolitan of India, visited Bangalore. He explained the method of raising funds by public subscription supplemented by Government grant which had been successful in Bengal, and a special Committee was formed to further the project. In November 1870, the Committee selected the present site, and it was arranged to rent the boys' school property for five years with option of purchase for Rs. 22,000 at the expiry of that

term. The adjoining premises were rented on a similar arrangement, the purchase money being fixed at



REV. S. T. PETTIGREW,
Chaplain of St. Mark's Parish Ch., Ban-
galore, and Founder of the Bishop Cotton
Schools.

Rs. 18,000. The school opened in the new premises on the 10th February 1872. The Government of India granted a loan of Rs. 37,000 at 5 per cent. in 1875, to enable the Trustees to absolutely acquire



BISHOP COTTON HIGH SCHOOL, BANGALORE, A PORTION OF THE BOYS'
SCHOOL AND PLAYGROUND.

the property and pay for the buildings erected. An arrangement was made in 1871 by which twelve scholars known as "St. Mark's Scholars" were admitted at half rates, the cost being paid from a Trust Fund in connection with St. Mark's Church. At the rendition of the Mysore Province to the Maharaja the Government loan was taken over by the Mysore Durbar, who in 1889 generously remitted the half of the outstanding balance, *i.e.*, Rs. 4,682-4-0. In 1897, the Mysore Government made a special grant of Rs. 2,000 in recognition of the school's good work. The school prospered for a time, but in the year 1907 it was considered useless by the Committee to continue the struggle for existence in place of serious rivalry, especially from missionary schools. It was resolved to approach the great Church Missionary Society of England to take over the Institution. In accordance the Bishop of Madras arranged for the S. P. G. Brotherhood working in Trichinopoly to come to Bangalore and undertake the management of the school. Under its auspices the school is regaining all its old influence. A sum of Rs. 25,000 has been expended in improving and extending the Institution and buildings. The attendance has increased and the Institution commands the esteem of all who wish their children to be educated by English gentlemen from English public schools. The present Honorary Secretary and Treasurer of the Bishop Cotton Schools and Chaplain of St. Mark's, Bangalore, is the Reverend F. W. Heycock, who was educated at Cheltenham College and New College, Oxford, where he took his B. A. degree in 1890 and his M. A. in 1898. Archbishop Temple, the Bishop of London, ordained Mr. Heycock Deacon in 1891 and Priest in 1892. He served the curacies of St. Mary's, Ealing, Christ Church, Blackfriars, and Christ Church, Forest Hill. In 1898, he arrived in India, and served in several stations in the Madras Diocese. In 1906, he came to St. Mark's, Bangalore. He has followed in the footsteps of his predecessors at St. Mark's, in taking the liveliest interest in the welfare of the Bishop Cotton Schools. It was his lot to be the Secretary of

the schools at the most critical period of their history, and he has done his share in supporting their cause and seeing them rise from a period of depression to one of renewed prosperity in an increased degree.

THE GOVERNMENT COLLEGE, JUBBULPORE.

This college originated in the Saugor High School, which was established by the General Committee of Public Instruction in 1836 and placed under the superintendence of a local Committee consisting of Government officials and native gentlemen of rank. College classes up to the F. A. Standard were added, and the school affiliated to the Calcutta University in 1860. It was removed to Jubbulpore in 1873. The Institution continued to be a Collegiate school till June 1885, when B. A. Classes were opened. The High School classes continued to be maintained till 1896, when they were abolished.

At present the College is affiliated to the Allahabad University up to the B. A. and B. Sc. Standards. There are large and well-equipped Physical Science Laboratories with a Mansfield gas installation. The Boarding house attached to the College accommodates about 82 students.

The Teaching staff consists of a European Principal and eight Indian Professors. It is the only Government Arts College in the Central Provinces. The present College buildings are unsuited to, and insufficient for, the needs of a first-rate Educational Institution, but this defect will soon be remedied, as a fine building for the College has been sanctioned by the C. P. Government. The growth of the College within the last twenty years is indicated by the following figures:—

1886	..	47	Students.
1891	..	87	..
1896	..	93	..
1908	..	164	..

Mr. ROBERT MCGAVIN SPENCE, M.A. (Edin.), Principal, Government College, Jubbulpore, Central Provinces. Born in Scotland in the year 1866. Graduated at Edinburgh University, where he took his M. A. degree in 1889.

Joined the Indian service in 1890 and arrived in India July 31st of same year, and was appointed to the substantive rank of Superintendent, Training Institution, Nagpur. In 1894 he was appointed temporarily to officiate as Principal, Jubbulpore College. In 1900 after furlough he did duty as Charge Officer on Famine Duty, and at the end of the same year was appointed to officiate as



MR. R. MCGAVIN SPENCE

Inspector of Schools, E. C. In 1903, after returning to the Training Institution, now in Jubbulpore, he did duty as Plague Executive Officer. In 1906, he again officiated as Inspector of Schools, Northern Circle. In January 1908, he was appointed Principal, Government College, Jubbulpore. Mr. Spence is a Fellow of the Allahabad University.

INDIAN INSTITUTE OF SCIENCE, BANGALORE.

It appears that as far back as the year 1894, or perhaps even at a much earlier date, the late Mr. J. N. Tata, Parsi merchant of Bombay, first conceived a scheme for the establishment in his native city of a university for post graduate study and research. Mr. Tata realised that the colleges attached to the Indian Universities resembled in some respects the American colleges

of a third of a century ago; and that, however efficiently they might provide for the general education of the people, they could play no part in the creation of a commercial India. It was clear to him that something of the nature of an institution, or institutions, analogous to the Johns Hopkins University in Baltimore, was needed in Bombay, and it was only when he had failed to obtain the support of his fellow-citizens, and inducements were held out to him by the Government of Mysore, that it was decided to locate the Institute in Bangalore. It may be added that both Her Highness the Maharani Regent, and her minister, the late Sir Sheshadri Iyer, one of the ablest statesmen that India ever produced, took a keen interest in the scheme, and that the latter was a close friend of the late Mr. Tata, with whom he had much in common.

From the outset Mr. Tata offered to find a large sum of money for the endowment of the Institute, and almost immediately after the arrival of Lord Curzon in India, negotiations were opened with Government with a view to obtaining financial support. These negotiations, which were conducted on behalf of Government by Sir Herbert Risley, Secretary in the Home Department, were brought to a successful conclusion at the end of 1903, when an arrangement was arrived at whereby Mr. Tata set aside property guaranteed to bring in a minimum income of one and a quarter lakhs; the Government of Mysore gave a capital grant of five lakhs, and an annual grant of half a lakh, and the Government of India contributed one half of the sum of these amounts, that is to say, a capital grant of two and a half lakhs, and upwards of eighty seven thousand rupees a year. It remained to transfer the property to Government, and to draw up a definite plan for the organisation and work of the Institute, when, in May 1904, Mr. Tata died, while on a visit to Europe.

Shortly before Mr. Tata's death two reports on the scheme had been published, one by Sir William Ramsay, and the other by Colonel Clibborn, the Principal of the Rurki Engineering College, and Professor Masson of Melbourne. Of these reports it is unnecessary to speak at

length; it may, however, be stated that they agreed in recommending the establishment of the Institute for teaching and research in those branches of science, such as chemistry, electro-technology, bacteriology, etc., which bear on industry. They also expressed the view that the Institute should attract the right kind of student, and that the numbers should be limited.

Mr. Tata's death naturally delayed the completion of his project; but at the end of 1905 his executors, Messrs. D. J. and R. J. Tata, his sons, requested the Government of India to take steps to appoint a director to the Institute. The present Director was offered the appointment on the recommendation of the Royal Society by the Secretary of State for India in August 1906, and arrived in India in November of the same year.

Owing to unforeseen delays, it was impossible to proceed at once with the establishment of the Institute, but after some delay a constitution was drawn up, and early in 1908 His Excellency the Viceroy, as Patron of the Institute, appointed a Committee to manage its affairs pending the transference of the properties and the publication of the scheme. The Committee met for the first time on the 23rd March, and shortly afterwards the building operations commenced. (The Committee consists of the Resident (Chairman), the Dewan, the Director of the Institute, Professor Rudolf (Applied Chemistry), Professor Hay (Electro-technology), Mr. Padsha (representing Mr. R. J. Tata), Mr. Bhabha (representing Mr. D. J. Tata).

Dr. MORRIS WILLIAM TRAVERS, D.Sc. (Lond.), F.R.S., 1904; Fellow of University College, London. Director of the Indian Institute of Science, Bangalore, is a Member of the Board of Scientific Advice for India. Born January 24th, 1872, son of the late William Travers, M.D., F.R.C.S., of London. Educated at Blundell's School, Tiverton; University College, London, 1889 to 1893; University of Nancy, France, 1894; Assistantship at University College, London, 1884; Assistant Professor, 1898; Fellowship, 1900. Elected to the Chair of Chemistry in University

College, Bristol, 1903. Appointed Director of the Institute, 1906.

Publications: The Experimental Study of Gases (Macmillan & Co.); Papers relating to the discovery of the rare Gases of the Atmosphere, conjointly with Sir William Ramsay; Papers on the Liquefaction of Hydrogen, on the measurement of extremely low Temperatures, and on other subjects relating to physical and inorganic Chemistry. Articles on Education.

Member of Scientific Societies: The Royal Society, the Chemical Society, the Society of Chemical Industry, the German Chemical



Dr. M. W. TRAVERS.

Society, the Faraday Society, the Asiatic Society of Bengal, the Mining and Geological Institute of India, the Indian Association for the Cultivation of Science.

Clubs: The Royal Societies, St. James' St., London; the U. S. Club, Bangalore; the U. S. Club, Simla; the Royal Bombay Yacht Club.

Recreations: Climbing, walking, fishing.

Address: Indian Institute of Science, Bangalore.

The NIZAM COLLEGE, Hyderabad, Deccan. This institution was originally known as the Madrasa-i-Aliya, or School for Nobles, and was founded by Sir Salar Jung I, to give education on English

public school lines to the sons of nobles and gentlemen. In 1887 the old Hyderabad College was abolished, on account of the smallness of the number of its students, and its classes were incorporated with the Madrassa-i-Aliya, the combined institution being named The Nizam College. This is a first grade college, affiliated to Madras University, and has a staff of graduates of English and Indian Universities, and of Moulvis and Pandits for the Oriental side. The college is open to all matriculates; the fees are about seventy rupees a year; and there are Government scholarships to the total value of Rs. 340. The School, as formerly, is open to sons of nobles and higher officials; the fees are ten rupees a month. The Boarding-house can accommodate about thirty boarders; the fees are about fifty rupees a month. There are ten or twelve scholarships from Rs. 70 to Rs. 100 for Murshidzadas, boys belonging to families more or less closely related to that of His Highness The Nizam, and residence in the boarding school is obligatory on the holders of these.

In 1907 the college was formed into a department independent of the Director of Public Instruction, and was placed under the management of a Board of Governors. There is an excellent library of several thousand volumes kept fully up-to-date in all the departments of study; and the managing body has determined on improvements on a large scale which when carried out will make the college, both on the English and Oriental sides, one of the best-equipped institution of its class in India.

Mr. E. A. SEATON, M.A., Principal, Nizam College, Hyderabad, Deccan. Born in England in the year 1858. Educated at Leeds School, Yorkshire, and proceeded to Oxford University as an Exhibitioner, where he graduated, taking honours in Classical Moderations and the Final School of Jurisprudence. In 1882, he was selected as assistant headmaster of the Madrassa-i-Aliya or School for Nobles, Hyderabad. Later, when the Nizam College was founded, he was appointed Vice-Principal under the late Mr. Hodson, M.A. He officiated in this capacity

or eight years, and at the expiry of this period was appointed Inspector of Schools, Aurungabad. Mr. Hod-



Mr. E. A. SEATON

son dying in 1894 Mr. Seaton was appointed to succeed him as Principal of the Nizam College.

Mr. PHILIP HENRY STURGE, M.A., Vice-Principal, Nizam College, Hyderabad, Deccan. Born in England, 1860. Educated at York School. Was a scholar of King's



Mr. P. H. STURGE.

College, Cambridge, and passed the B. A. Examination in the year 1886, being bracketed senior in the Historical Tripos. He took his M. A. degree in 1890 and came to Hyderabad to take up his present appointment of Vice-Principal, Nizam College.

Mr. JOHN GUTHRIE TAIT, M.A., Bar-at-Law, Principal, Central College, Mysore. Mr. Tait was born in the year 1861 at Edinburgh, Scotland, and educated at the Edinburgh Academy. After taking the M. A. degree at the University of Edinburgh, he went to St. Peter's College, Cambridge, and took a first class in the classical Tripos in 1883. He was called to the Bar at Lincoln's Inn in 1888. He was at Lincoln's



Mr. J. G. TAIT.

Inn for about five years. In the year 1890 he came to India to join the Mysore Educational Service and was appointed Professor of English at the Central College. In April 1908 his present appointment as Principal of the same Institution was bestowed upon him.

The VOKKALIGARA SANGHA. This Association was started for the education and amelioration of the condition of the Vokkaligars, who form the main agricultural population of the State of Mysore. India is still mainly an agricultural country and the bulk

of the population are tillers of the soil. These agriculturists live isolated lives bounded by the confines of their villages, within which their interests lie, and with small means of obtaining information of the doings of the outside world. The advantages of civilization, science and education which have followed the extension of British Rule in India have been slow in reaching the masses of the agricultural population, though signs of an awaking are not now wanting. Among these signs is the Vokkaligara Sangha, the establishment of which is due to a few educated gentlemen of the community, Messrs. T. Byannah, B. Kempanna, B. Nagappa, Bar.-at-Law; H. Channiah, M. L. Shama Gowda, M. Subbiah, B. N. Channigappa, B.A.; C. Lakshmana Gowda, B.A., B.L.; C. Nanjappa, M.B., C.M.; K. H. Ramayya, B.A.; B. Puttaya, B.A. These gentlemen seeing the backwardness of their people conceived it their duty to set themselves to remedy it. Enlisting the sympathies of certain well-to-do members of the community they accordingly formed themselves into the Association named as above, on April 1, 1906. The objects of this Association are: (1) the establishment of students' homes at Bangalore and other centres for Vokkaligar students under proper supervision; (2) the publication of a newspaper and other literature for the dissemination of information useful to the community; (3) the deputation of lecturing missionaries to the interior of the country to secure the adherence of the Vokkaligars to the objects of the Association; (4) the organisation of an annual general conference to bring the Vokkaligars together for the purpose of mutual communication, as well as to pass and comment on the work of the Association, and thus effect unity among the scattered community. There are about a million and quarter of Vokkaligar agriculturists in the State of Mysore, and the field is a large one. His Highness the Maharaja of Mysore has signified his emphatic approval by consenting to become the patron of the Association. The Vice-Patron is Mr. V. P. Madhava Rao, B.A., C.I.E., the Dewan of the State of Mysore, who was in the first instance

approached by the promoters. On the occasion of the second annual conference a silver casket was presented by the Vokkaligars to H. H. the Maharaja, who opened the Conference, and in addressing them referred to the importance of the Vokkaligars, who constituted the great majority of the cultivators of Mysore. The community he remarked had been backward in education, contenting themselves with attending to the immediate business of their lives without paying heed to what was going on in the outside world. They had not found their voice as a corporate body till within the last year or so. Any movement that tended to their welfare would receive his support. His Highness was therefore graciously pleased to become the Patron of the Association. The Association has vigorously taken up their programme. They have asked Government for a grant of land on which to construct the students' home and other buildings, and Messrs. Marappa and Muniswamappa, wealthy members of the community, have undertaken to erect the buildings at a cost of 20 to 30 thousand rupees. The "Vokkaligar Patrika," a Canarese weekly, is being published; of which Mr. B. Puttaya, the Assistant General Secretary of the Association, is Editor. A printing press and accessories have been acquired. Mr. K. H. Ramayya, B.A., who is the life and soul of the Association, has toured through the districts and lectured to the Vokkaligars with success as far as Coimbatore and the Nilgiris. It is under contemplation to train men under him for missionary work. Mr. T. Byannah, President of the Sangha, who takes a keen interest in its work, has made a handsome donation of Rs. 10,000 to the funds, besides lending his substantially built house at Cottonpetta, Bangalore, for the office and printing establishment. Mr. B. Nagappa, Bar.-at-Law, and Member Mysore Legislative Council, has also evinced his deep interest by a donation of Rs. 5,000. In all some Rs. 20,000 has been collected from sympathisers and deposited in the Bank of Madras in accordance with the rules of the Association. The Conferences held at Bangalore

(1906) and Mysore (1907) were numerous attended, and the dinners and social gatherings organised on these occasions have done much to dispel prejudices and sectarian bias and promote a spirit of unity.

Mr. JOHN WEIR, M.A., F.M.U., Principal of the Maharaja's College, Mysore. Born in Scotland in the year 1862, and educated at Glasgow High School and Glasgow University, where he took the degree of M. A., with first class honour in Mathematics and Natural Philosophy. He subsequently attended Cambridge University where he took the degrees of B. A. and M. A. (1886 and 1890). He was for four years



Mr J. WEIR.

Assistant Professor of Mathematics at the University of Glasgow, at the expiry of which period he joined the educational service of H. H. the Maharaja of Mysore, and came out to India with the grade of Superior Educational Officer, 2nd class, and the appointment of Principal of the Maharaja's College, which he has held ever since, being promoted to the 1st class in 1899. Mr. Weir was also a member of the Managing Committee of the Maharani's Girls' School from its inception to its abolition in April 1908. He is an Honorary Fellow of the Madras University.

Madras Chamber of Commerce.

THE history of the growth and expansion of the trade of Madras during the past seventy years, is the history of the Madras Chamber of Commerce--an Association of the merchants of the Presidency capital, which was incorporated on the 29th September, 1836. The inaugural meeting was held at the office of Messrs. Binny & Co., Armenian Street, Black Town (or Georgetown, as it is now called), a firm which is still connected with the Chamber. It was then unanimously resolved :--" That an Association be formed in Madras under the designation of the Madras Chamber of Commerce." Mr. John Alves Arbuthnot was elected Chairman, and a Committee, comprising Messrs. J. W. Dare, J. Line, J. Scott, D. Pugh, J. Ouchterlony and J. Barrow, was appointed. Mr. W. H. Hart was nominated Secretary, and Messrs. Binny & Co. undertook the office of Treasurers, which they held until recently.

At the first meeting of the Chamber, communications were opened with the East India and China Association of London and with the Calcutta Chamber of Commerce, which had been established in 1835. In the letter to the Calcutta Chamber it was stated that " the principal object of the Madras Chamber being the same as that of Calcutta, namely, the amelioration of all Laws and Regulations bearing on Commerce in the East Indies," the Committee was " induced to hope that it will have the honour of your correspondence on all subjects affecting the general interests of India;" and it looked " forward with great satisfaction to the probability of the united voice of the Chambers of the three great Presidencies, forming the organ of the whole of the commercial interests of India, aided by the powerful influence and sup-

port of the East India and China Association, effecting much toward the removal of the restriction, which has long been denied to individual representations." In December of the same year, correspondence was opened in the same way with the Bombay Chamber, which had been established barely a week before that of Madras; and on the 10th May, 1839, the co-operation of the Ceylon Chamber was welcomed by the

Madras Chamber. On the 12th February 1856, the Madras Trades Association, the younger sister of the Chamber of Commerce, came into existence, and the Chamber, in offering its felicitations, assured the Trades Association of its cordial co-operation in all matters connected with the commercial interests of the Presidency. The Government of Madras were informed on the 11th October, 1836, of the establishment of the Chamber, and were asked to allow that body to correspond directly with the different public departments. The request was laid before Sir Frederick Adam, K.C.B., the then Governor of Madras, when the following order was passed thereon :--" The Right Honourable the Governor in Council anticipates much public good from the proceedings of the institution and would have felt some additional satisfaction had he observed the names of some of the principal native merchants en-

rolled among its members." Adverting to the Chamber's request to deal directly with heads of Government Departments, the Governor in Council " considers it preferable that the information required by the Association should be supplied through the medium of the Government." Finally in the matter of the privileges to be accorded the Chamber, it was decided to place the Madras body on the same footing as the



The Hon. Mr. V. G. LYNN,
Present Chairman, Madras Chamber of Commerce.

Calcutta Chamber as soon as it was ascertained what privileges had been extended to that Chamber by the Governments of India and Bengal. In acknowledging the Government Order, and referring to the matter of the admission of Indian merchants, the Chamber said, that the only two Indians connected with the trade of the Port who had expressed their wish to become subscribers of the Association had been enrolled among its members, and that it was open to any Indian, as it was to any European, merchant to obtain admission to it, at any time, by adopting the usual course prescribed for candidates by the Rules and Regulations of the Chamber.

Several Indian firms did take advantage of the privilege; but in recent years Indian membership has dwindled considerably, and at present there is not a single Indian firm represented in the Chamber.

From the year 1841, when its first Secretary went to England,

until December 1854, when his successor, Mr. Benjamin Cardozo, was appointed, the Chamber took very little part in the public life of Madras. From the latter year, however, it made up for any lack of activity that may have been shown during the first decade and more of its existence. No permanent arrangements were made respecting a building for the meetings of the Chamber,

and in its earlier years it occupied a furnished room, wherever accommodation offered. In 1869 the Chamber entered into possession of a room which had been specially built for it at No. 6, First Line Beach, Black Town (now Georgetown), and since then it has occupied these premises in conjunction with the *Madras Mail*, the tie binding the Chamber and the leading journal in South India being Sir Charles Lawson, one of the proprietors, and who for twenty-three years was editor of that paper, and his son Mr. A. E. Lawson, now editor of the paper, who have successively held the Secretaryship from 1862 to the present day.

THE CHAIRMANSHIP.

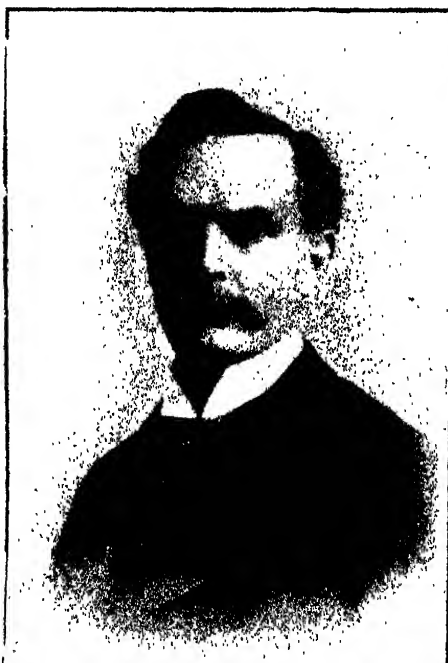
Among the leading merchants of Madras, who have filled the office of Chairman are the following:—

Mr. J. A. Arbuthnot, Mr. J. W. Dare, Mr. W. S. Binny, Mr. John Line, Mr. James Scott, Mr. J. A. Ellis, Mr. James Thomson, Mr. J. B. Key, Mr. George Arbuthnot, Mr. Henry Nelson, Mr. William McTaggart, Mr. W. N. Arbuthnot, Mr. Joseph Goolden, * Mr. R. C. Campbell, Mr. W. H. Crake, Mr. John Vans Agnew, * Mr. A. J. Byard, * Mr. W. Riersen Arbuthnot, Mr. Henry Tolputt, * Mr. John Young, * Mr. A. F. Brown, * Mr. J. C. Loch, * Mr. Patrick Macfadyen, Mr. R. C. Walker, * Mr. Clement Simpson, Mr. J. Jones, * Mr. Alexander Mackenzie, Mr. J. C. Shaw, * Mr. J. A. Boyson, * Mr. (now Sir) George Arbuthnot, * Mr. S. R. Turnbull, * Mr. G. L. Chambers, * Mr. A. J. Yorke, Mr. H. Scott and * Mr. V. G. Lynn.

REPRESENTATION ON PUBLIC BODIES.

Since the year 1862, representatives of the Chamber

have sat on the Madras Legislative Council. The names of those given above marked with an asterisk are those who have held this office. Previous to the year 1892, the selection of a Member to represent the Chamber on the Council, was entirely in the hands of the Government; but since the enlargement of the Council, the Chamber has elected its representative for nomination



Sir CHARLES LAWSON,
Secretary from 1862 to 1892.



Mr. A. E. LAWSON,
Secretary from 1892 to date.

by Government to the Council. Still more recently the Chamber has been given a voice in the administration of the municipal arrangements of the city, in the proper control of which its members, among whom are some of the largest rate-payers, have such a deep interest. By a recent amendment of the Madras City Municipal Act, the Municipality was converted into a Corporation, and the European community of the city was given a better representation than it had been possible to secure previously by election, or by nomination by the Government. Under the new Act constitutional bodies like the Chamber of Commerce, the Madras Trades Association, the Railways, etc., have the privilege of electing a certain number of Commissioners to represent them on the Corporation. The Chamber of Commerce is now represented by three members.

THE SECRETARYSHIP.

In the early years of the Chamber, the office of Secretary was apparently not much considered. Mr. Hart, the first Honorary Secretary, retained the office for only three months, and then resigned. His successor, Mr. A. J. Maclean, was a paid Secretary, but on his departure for England in 1841, no one was appointed in his place, the Chamber, as already stated, being in a state of suspended animation. The office of Secretary remained vacant until December 1854, when Mr. Benjamin Cardozo was appointed and held the Secretaryship until the 23rd May 1861. He was succeeded by Mr. R. W. Norfor, who filled the appointment for a year, and then resigned on being appointed Superintendent of Stamps. He was succeeded in 1862 by Mr. (now Sir) Charles Lawson, who held office continuously for thirty years, a period which synchronises with the development of the Chamber from small and tentative beginnings into vigorous life and powerful influence, not only on the commerce of Southern India, but on that of the whole country.

It was in 1886, on the 29th September, that the Chamber attained its Jubilee. At an Extraordinary General Meeting it was resolved "that a day, to be fixed on hereafter, be observed as a general commercial holiday in honour of the fiftieth anniversary of the foundation of the Chamber, and also that a dinner be given at the (Madras) Club." In accordance with this Resolution, the 18th December was observed as a general holiday and a very successful banquet was given at the Madras Club at which the Governor, the late Lord Connemara, was present. Mr. (now Sir) George Arbuthnot, the nephew of the first Chairman, Mr. J. A. Arbuthnot, was at the time Chairman of the Chamber, and presided at the banquet. At the same Extraordinary General Meeting of the Chamber, held on the 29th September, the Chamber placed on record its very high appreciation of the services rendered by Mr. Lawson, who had then filled the office of Secretary to the Chamber for nearly twenty-four years. On the 30th June, 1887, Mr. Lawson presented to Her Majesty the late Queen Victoria, at Windsor Castle the Madras Address of Congratulation on the completion of the Jubilee year of her reign, when Her Majesty conferred

upon him the honour of Knighthood. In 1891 Sir Charles Lawson was in England on leave, and as he was unable to return to Madras, he wrote to the Chamber saying, that he was reluctantly compelled to ask it to accept his resignation of the office of Secretary which he had held since November 1862. At the next General Meeting of the Chamber the following resolution was carried unanimously:—"That the Chamber accepts Sir Charles Lawson's resignation with very great regret, and that the Chairman be requested to convey to him in suitable terms its high appreciation of his excellent services in the past, and to again place on record its cordial acknowledgment of them." Sir Charles Lawson was afterwards the recipient of a handsome piece of plate as a souvenir of his long connection with the Chamber.

Sir Charles Lawson was succeeded by his son, Mr. Arthur Ernest Lawson, the present Secretary, who has had charge of the affairs of the Chamber through another long period of constant change and development in the trade of Madras.

THE WORK OF THE CHAMBER.

The interests of the trade of Madras have been sedulously guarded and promoted by the Chamber of Commerce. Its practical experience of matters intimately connected with the conservation and development of the material resources of the



OFFICES OF THE CHAMBER OF COMMERCE, MADRAS.

country has been largely utilized by the Government of Madras, and its opinion has been frequently invited by the Government of India on Imperial legislation connected with the trade and commerce of Madras. On such subjects as stamps, customs, contracts, bankruptcy, coolie emigration, merchantshipping, master and servant, municipal taxation and reform, currency, Government securities, Presidency banks, adulteration of raw products, the Legislature has received much material assistance from the Chamber; while on such technical subjects as boat-notes, tonnage schedules, port rules, port clearances, fees to Port officers, Marine courts, landing charges, railway freights, train service, negotiable instruments, weights and measures, trade marks, value-payable parcels, bills of lading, general average, rates of interest, notarial fees, usance of bills, commercial statistics, detention and acceleration of mails, postal and telegraph charges, telegraphic codes,

etc., etc., the care and attention devoted to their consideration by the Chamber has done much to aid the smooth working of the affairs of the Port. Perhaps the most outward and visible sign of the growth of the trade of Madras and the activity of the Chamber is the Harbour. The Chamber has from the very first interested itself greatly in the improvement of the Port of Madras. On the 17th September 1859, the Chairman assisted the Governor and the Commander-in-Chief of the Madras army in screwing down the first pile of the pier. Between 1869 and 1872 the projects for mitigating the natural disadvantages of the Port by means of a breakwater were exhaustively discussed, and in 1873 the Chamber gave its general support to the Madras Harbour Scheme, that "hoary and baffling enigma" of Lord Curzon, which is still in process of solution by the Madras Port Trust. This body, by the way, largely owes its existence to the Chamber and its importunity for a better and freer control of the Port funds, etc., than was possible under the fettered conditions under which the old Harbour Trust Board worked. The constructional activity visible in the Harbour and its surroundings during the past three or four years bears ample testimony to the improved state of things in this respect.

Shortly after its formation the Madras Chamber of Commerce evinced much interest in the establishment of steam communication with Europe, and, in 1846, it contributed £100 to the London fund for presenting a testimonial to Lieutenant Waghorn, the pioneer of the Overland Mail Route. The almost complete change from sailing vessel to steamship traffic is a development in the seaborne trade of the world that the Madras Chamber is old enough to have witnessed, and the extensive inter-portal coast trade of India, Burma, the Straits Settlements and the Persian Gulf, by the B. I. S. N. Co. and other lines, is the result of the Chamber's work, in conjunction with similar bodies in other Presidencies, Provinces, and trading centres in India.

The development of the Railway system in Southern India has been, and will always be, watched by the Chamber with great interest and sympathy, and the importance of encouraging traffic by low charges and

reasonable conveniences has always been pressed. Since its inception the Chamber has seen Southern India covered by a network of railways, Bombay and Calcutta linked up with Madras, and uninterrupted through-communication established throughout India. The enterprise of the South Indian Railway has been rewarded, by the sanction recently accorded to the proposed Indo-Ceylon Railway connection and through-communication with Colombo will be possible in the near future.

The Madras Chamber of Commerce, like other commercial and trading bodies in India, has steadily opposed the interference of Government with the ordinary operations of trade. As one of the earliest and most important instances of this opposition may be mentioned the fact that, as soon as the industry had largely engaged private enterprise, the Chamber deprecated the connection of the State with cinchona cultivation. In this matter, however, the benevolent intentions of the Government were a just excuse for the continuation of its connection with the cinchona planting industry. In the matter of jail industries, however, the question is entirely different. The problem as to how far Government are at liberty to profit by convict labour is far from solved; but, thanks greatly to the action of the Madras Chamber and the Trades Association, the competition between jails and private manufacturers is far less keen in the Madras Presidency than elsewhere. As a general rule the relations between Government and Commerce in this respect are almost wholly amicable, and it is due to the initiative of the Government that some new and lucrative industries now exist in South India, e.g., cinchona, aluminium-manufactures, chrome-tanning, etc. In brief, the Chamber has identified itself with all movements for the benefit of the people and the country in Southern India. Statistics show that the trade of Madras, in common with that of the rest of India, is expanding every year. The signs all point to a continuance of this happy state of affairs and with merchants alert to take advantage of every opening, and a Government which recognises the necessity of keeping pace with the forward march of trading enterprise, the augury for the future is one that is encouraging.



The

Burma Chamber of Commerce.

It is not surprising that the merchants of Burma made no attempt at organisation so long as they had to live under the Burmese Government. The native rulers were very intolerant of criticism, and had very summary ways of suppressing it. For instance, in 1843 Mr. M. F. Crisp, a merchant, who had resided in Rangoon for many years, incurred their displeasure over a letter of his which had been published in the *Calcutta Star*, commenting on the methods of the Burmese Government. Mr. Crisp was in Moulmein at the time, but had to return to Rangoon, as the Burmese Governor had threatened to execute vicarious punishment on Mr. Crisp's son, if he could not get hold of the father. On Mr. Crisp's return, he was placed under confinement for a time, but was released on his promise to quit Burmese territory.

It is curious, however, that no attempt at forming a Chamber of Commerce seems to have been made in either Moulmein or Akyab after they came under British rule in 1826, although certain old records of Moulmein indicate that the timber merchants and ship-builders there, during the thirties and forties of last century, had plenty of enterprise and were ready enough to combine for any public purpose. Shipbuilding seems to have been started in 1830, when a small vessel of 51 tons was built, to which the name, *Devil*, was given. By April 1842, however, the total number of ships built at Moulmein amounted to 65, including one steamer, and their aggregate tonnage was 16,324.

The old Moulmein newspapers show clearly enough that the timber merchants and ship-builders were often in a state of protest against the acts of the local authorities, or even against those of the Supreme Government, and were ready enough to co-operate in protesting loudly when occasion required. For instance, in 1844 a good deal of dissatisfaction was felt over certain lands that had been taken up for roads, without compensation being granted to the owners. On the 9th January, 1845, a considerable portion of the town

was destroyed by fire. Next day a public notification was issued by Captain McLeod, on behalf of the local authorities, prohibiting the re-occupation of the sites. On the 16th January an indignation meeting was held, and a Committee was appointed "to devise such measures for the protection of property as the present emergency requires." This Committee waited on Captain McLeod and asked on what authority the Local Government sought to deprive them of their land. Captain McLeod denied that they had any proprietary rights; said he considered that the space was necessary for the safety of the Cantonment; and suggested that the inhabitants should memorialise the Supreme Government in Calcutta. When this memorial reached Calcutta some of the papers there expressed sympathy with the inhabitants of Moulmein, but the *Friend of India* condemned the memorial as too long, very unreadable, and impertinent. The impertinence lay in calling the fire "a convenient fire."

Again, in 1850, there was indignation among the Europeans throughout India over what were known as the "Black Acts," by which the exemption of Europeans from the jurisdiction of the Criminal Courts of the East India Company was to be abolished. Mr. T. Dickens, a Barrister, led the opposition in Calcutta, and Moulmein, of course, entered its protest also. A short time afterwards, Mr. Dickens visited Moulmein, and was given a public dinner there, the band playing "See, the

Conquering Hero comes" when he entered the rooms. In replying to the toast of his health, Mr. Dickens alluded to the East India Company as "the rascals who sell justice." These two instances show that the mercantile community of Moulmein were certainly not unduly subservient to authority, whatever other faults they may have had. Yet they seem never to have joined in the permanent co-operation which a Chamber of Commerce represents, though Calcutta had a Chamber as early as 1838, and Bombay one in 1836. Even after the



Mr. ALEXANDER PENNYQUICK.
A former Chairman of the Burma
Chamber of Commerce.

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annexation of Pegu in 1852, it was some years before a Chamber of Commerce was formed in Burma. The causes which led to the formation of the second Chamber in 1877 and its subsequent history to the present time are easily traced, but there is very little trace of the first Chamber. A chance reference to Mr. John Connell as Honorary Secretary to the Chamber of Commerce in 1863, shows that it existed then. Mr. Connell seems to have been Secretary to the first Chamber throughout its existence, and he was also the first Secretary to the present Chamber. The Reports of the first Chamber for 1867 and 1869 are extant, and they show that through that time the Chamber was protesting against an additional export duty of one anna per maund on rice, which had been imposed in March 1867. In a book published in 1869 by Captain Bowers, R. N. R., giving an account of an expedition sent to Yunnan in 1868, he says:—"The Chamber of Commerce of Rangoon was represented by Theodore Stewart, Esquire, of Akyah, a gentleman of considerable experience; the other section of the mercantile body appointed Mr. John Stuart their Agent." Whether the expenses of that expedition exhausted the funds of the Chamber, or whether it was wrecked over the disunion implied in Captain Bowers' remark, above quoted, there is nothing to show. After 1869 there is no trace of its existence, and when a further expedition was sent to Bhamo at the end of 1870, the funds were subscribed by individual merchants, and there is no mention of any Chamber.

The existing Chamber of Commerce was formed in 1877. During the years which elapsed between the collapse of the first Chamber and the formation of the present one, whenever joint action of any kind seemed desirable the merchants combined to do what would be ordinarily done by a Chamber of Commerce. In this way they combined, towards the close of 1870, to send a trial consignment of goods to Bhamo in order to test the possibility of increasing the trade with Western China. Although the treaty with the King of Burma stipulated that goods passing through Upper Burma to Western China should pay only one per cent. transit duty, this privilege was practically never even claimed by the native traders in whose hands the trade lay. They were in no position to resist Burmese officials, and had in practice to submit to almost any exaction that might be levied. It was thought that a consignment to Bhamo, under the charge of a European, might lead to a better state of things. A consignment of goods, such as were considered likely to find a ready market, was accordingly prepared and despatched under the

care of Mr. John Stuart to Bhamo, to be sold there, for Western China, paying only the one per cent. transit duty. There was no difficulty in getting them up to Bhamo, under Mr. Stuart's promise to the Burmese authorities to give an account of the sales and settle the duty afterwards. Three months in Bhamo sufficed to sell the whole consignment, without any exaction, licit or illicit, on the part of the Burmese officials at Bhamo, so long as the goods remained in Mr. Stuart's hands. But immediately they had passed into the hands of the traders who were to take them into China, the illicit exactions began. This was greatly facilitated by the fact that almost everything had to be opened out and repacked for mule transit. At every stage of the journey, too, fresh exactions would be made by every petty chieftain through whose territory the caravans had to pass. Under these circumstances there did not appear to be much prospect of increasing the trade with Western China, even if the rule as to the one per cent. transit duty could be applied. On this point, however, a difficulty arose when it came to the final settlement with the officials in Mandalay. They claimed that, as the goods had been sold in Bhamo, they were liable to full duty, and, according to the Burmese version of the treaty, their contention on this point was correct.

It was not until some years later that the necessity for joint action became so acute as to lead to permanent co-operation in the form of a Chamber of Commerce. Throughout 1875 and 1876 there had been a good deal of dissatisfaction among the timber merchants of Moulmein regarding the action of the Forest Department. Up to 1873, the principal Government forests in Tenasserim were let out to permit-holders who brought out the timber, paying certain fixed

dues. In 1874 the system seems to have been altered, the merchants attributing the change to the fact that in that year there were no bidders for the largest forests, and asserting that this was what led Government to work these forests by Government agency. The Chief Commissioner, however, denied that "the permit system was relinquished from any difficulty in finding parties to engage with Government for the extraction of timber, or that Government has any desire or intention of resuming that system."

It was not, however, to the extraction of timber from the forests by Government agency that the merchants objected. That they admitted to be perfectly legitimate. But in 1875 Government seems to have started cutting up and exporting timber, and to this the Moulmein timber merchants objected very strongly indeed. In October



MR. JOHN MACGREGOR.
A former Chairman of the Burma
Chamber of Commerce.

1875 Messrs. Bulloch Brothers and Company made a complaint to the Chief Commissioner on this subject. Mr. Ribbentrop, the Conservator of Forests in Rangoon, when called on for an explanation, said that the sales of converted timber, which he had made up to that time, consisted of the refuse of sleepers cut up for the Railway Department, but he admitted that a small quantity of planks had been shipped to Calcutta, and he declared his intention to ship some first class India squares in order that he might become "*au fait* in the ins and outs of the timber market." During 1876 and 1877, upwards of 7,000 tons of converted timber were exported from Moulmein by the Forest Department. Of this 2,000 tons consisted of sleepers for the Irrawaddy Valley State Railway, that is for the line from Rangoon to Prome, which was the first line constructed in Burma. Of the remainder, 760 tons were shipped to England for the Admiralty, but the balance, over four thousand tons, was sold in various markets, coming into direct competition with the shipments made by the timber merchants of Moulmein. This led to a protest, on the 31st October, 1877, which was signed by eighteen European and Native timber firms in Moulmein. Six weeks later, this was backed by a protest on the same subject from the Rangoon Chamber of Commerce, which had meantime come into being.

Another burning grievance was the interference of the King of Burma in the matter of the trade between his country and British Burma. In 1874-75, this trade reached a total of sixty lakhs, but in the following year it declined to forty-nine lakhs and in 1876-77 to forty-eight lakhs. This result was attributed by the merchants of Rangoon to the action of the King. On the 28th February, 1877, a remonstrance signed by 39 merchants of Rangoon—Europeans, Chinese, and Natives of India—was sent to the Chief Commissioner, in which it was stated:—"The Chinese merchants of Rangoon were formerly, as you are aware, in the habit of consigning large quantities of piece-goods, salt, etc., to Upper Burma. An attempt was made by the King, in 1871, to coerce these men into selling their goods to him alone; this attempt proved a comparative failure, and the King has now adopted another mode of monopolising the up-country markets, which we beg to state as briefly as possible. He has passed an edict, or, what virtually amounts to the same thing, has forbidden his subjects to buy from any one, except men appointed by him, who are called Royal Brokers. Four of these brokers are now in Rangoon, and they, in conjunction with a Marwaree trader, are purchasing piece-goods for sale

in Mandalay and other up-country towns. The Chinese merchants are thus prohibited from doing any business, and there is, consequently, none of that healthy competition specially provided for in the Treaty." This protest was followed, in January, 1878, by a similar one from the newly re-established Chamber of Commerce.

These two grievances, that of the timber merchants in Moulmein, and that of the import merchants in Rangoon, seem to have convinced the mercantile community of Burma that it was a mistake to continue any longer without a Chamber of Commerce. Accordingly a meeting of merchants was held at the office of the Rangoon Municipality on 1st November, 1877, "to make preliminary arrangements for the re-establishment of a Chamber of Commerce at Rangoon."

Mr. A. Watson, the Agent of the Chartered Bank of India, Australia and China, was Chairman, and the following gentlemen were present:—Messrs. Halliday, Melville, Hintze, Finlay, Borland, Buchholtz, Scheppelmann, Krauss, Connell, Gillam, Müller, Scott, Stuart, Binning, McIver, Bryce and Rowett. The first Committee of the new Chamber consisted of Mr. Melville, Chairman, Mr. Halliday, Vice-Chairman, and Messrs. Hintze, Borland, Watson, Krauss and Bryce, Members of Committee. Mr. John Connell was appointed Secretary, an office which he continued to hold until the middle of 1882. He was succeeded by Mr. John Stuart, who carried on the work until June 1893. The next Secretary was Mr. Alexander D. Warren, who was succeeded in March 1904 by Mr. Charles A. Cones. In October, 1907, Mr. J. Whitlow, the present Secretary, was appointed.

The records of the Chamber contain no further allusion, beyond the first letter of protest,

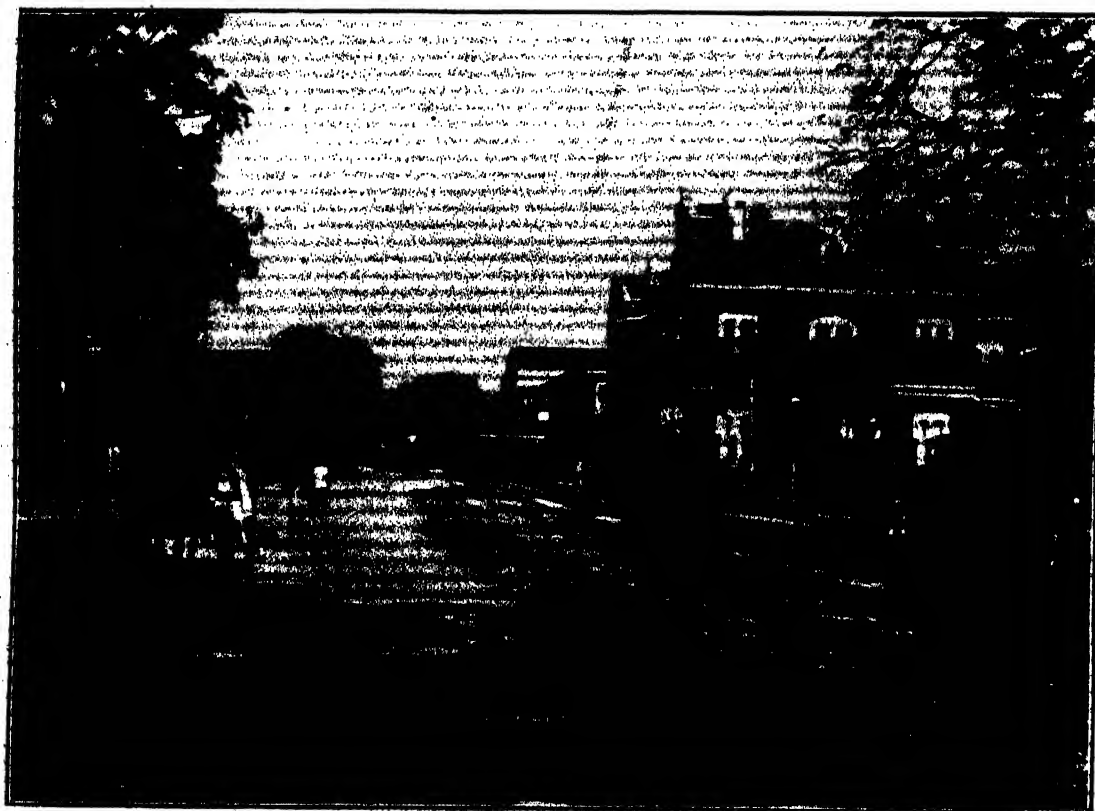
to the grievance of the timber merchants of Moulmein, so that must have been promptly redressed. But it is very different in the case of the complaints against the King of Burma. Although there are occasional protests about the working of the Courts in British Burma, and dissatisfaction is expressed at the alienation of so much of Burma's revenue to India while the province is so badly in need of an increased expenditure on communications and on more efficient administration, the misrule in Upper Burma is the chief subject of protest until the annexation of that province in 1886. Early in that year, the Secretary of the London Chamber of Commerce wrote to ask whether the annexation of Upper Burma "does not give more, rather than less, emphasis to the claim made by your Chamber, some time ago, for the separa-



Mr. JOHN STUART,
Secretary of the Burma Chamber of Commerce,
From 1882-1893.

tion of the Government of Burma from that of India, and the establishment of a separate Crown Colony in direct connection with the Home Government, say for the whole of the Malay Peninsula." The following extract from the reply sent by the Rangoon Chamber of Commerce is an interesting record of local feeling at the time:—"There is undoubtedly a widespread feeling of discontent, especially among the European non-officials in Rangoon, at some of the results of the connection with India. The feeling, however, originated mainly in resentment at the injustice of the alienation of Burma's surplus revenue, and at the indifference so long manifested by the Government of India in the matter of misrule in Upper Burma. The latter grievance has now been removed and it is felt that, although the

history at such length. The later history must be very briefly described. The following are probably the points which excited most general interest at the time they occurred. In July, 1887, a crowded Special Meeting was held "to support the Irrawaddy Flotilla Co., Ltd., in their request to have the wharf tolls and dues on the Inland traffic, which the Port Commissioners purpose to levy, compounded for a payment of Rs. 12,000 per annum, such amount to be re-assessed periodically." The Chinese and other shippers had previously memorialised the Chief Commissioner on this subject, and the Chamber urged that the offer of the Irrawaddy Flotilla Co., Ltd., was fair and reasonable, and that it provided for the interests of the Port without harassing traders.



MERCHANT STREET, RANGOON.

annexation of Upper Burma does strengthen the case for separation, agitation directed towards that end would come with a bad grace from the European merchants just after the Indian Government has so fully met their wishes in regard to the Northern portion of the country."

From the time of the annexation of Upper Burma, the work of the Chamber proceeds on more ordinary lines. Previous to the annexation, the merchants in temporary combination, or, later on, the Chamber of Commerce, were facing the difficulties of a comparatively small frontier province with barbarism beyond the border. In India, one would have to go much further back in time to find a similar situation. This must be our excuse for describing that portion of the Chamber's

Through the next few years, three subjects constantly recur, (1) the need of a local High Court, a need which was first urged by the Chamber in 1884; (2) the necessity for having a representative of Burma in the Imperial Legislative Council; and (3) the need of having the Province converted into a Lieutenant-Governorship. In 1895 the second of these needs was recognised by the Government of India, and Mr. Glendinning, the Chairman of the Rangoon Chamber of Commerce, was appointed a Member of the Imperial Legislative Council. There was, of course, no Legislative Council in Burma, until the Province was raised to the status of a Lieutenant-Governorship in 1897. It was not until the year 1900 that the Act constituting the Chief Court of Lower Burma was passed, but the gratification of the

Chamber at getting this Court, for which they had been asking for 16 years, was damped by the fact that a member of the Civil Service was to occupy the position of Chief Justice. A protest was at once made, and this was subsequently renewed as occasion offered; but it was not until 1906 that a Barrister of experience, in place of a member of the Civil Service, was appointed Chief Justice.

There is, unfortunately, no record concerning the Chairman of the Chamber during its earlier years. Mr. Melville, of Messrs. Todd Findlay & Company, was the first; Mr. Krauss, of Messrs. Gillanders, Arbuthnot & Company, seems to have succeeded him in 1878, though only for a short time, as Mr. Richard Rowett was appointed Chairman at the Annual Meeting in November of that year. At the Annual Meeting of 1879, Mr. Krauss was again Chairman and was also appointed for the following year. From that time on to 1891 the records do not show who was Chairman, but it is certain that Mr. John Thompson,

of Messrs. Gillanders, Arbuthnot & Company, occupied the post for some years. At the Annual Meeting of 1893, Mr. Alexander Pennycuik, of Messrs. Finlay, Fleming & Co., was Chairman and continued as such until some time in 1895, when he was succeeded by Mr. G. P. Glendinning of the Bombay-Burma Trading Corporation, Limited. For some years afterwards the Chairman was generally either Mr. Pennycuik or Mr. John Macgregor, of Messrs. Macgregor & Company. Other gentlemen who have occupied the Chair during recent years are Mr. D. R. Cameron, Mr. J. G. Reddie, and Mr. Charles Findlay, all of Messrs. Bulloch Brothers & Company, Limited; Mr. James G. Findlay and Mr. James P. Hay, both of the Irrawaddy Flotilla Company, Ltd., Mr. C. H. Wilson, of the Hongkong and Shanghai Banking Corporation, and Mr. J. R. Halliday, of the Arracan Co., Ltd., the present Chairman.

In 1906 the name of the Chamber was changed from the Rangoon Chamber of Commerce to the **Burma Chamber of Commerce**.



The Madras Trades Association.

THE history of the Madras Trades Association, as at present constituted, dates back only to 1901, in which year it was registered as a Company under the Indian Companies Act of 1882, with limited liability, but without the addition of the word "Limited" to its name. For some years previous to this there had been in existence an informal association devoted to the interest of retail trade, but it published no annual report and the existing records of the work on which it was engaged are but few. The heads of the various trading firms took such action as was considered desirable for their mutual benefit, and from time to time a book was circulated in which was recorded such information as was likely to prove of service to those concerned, in the conduct of their trading operations. But there was no officially recognised organisation until 1901, when the Memorandum and Articles of Association, and bye-laws for the regulation of Trusts were drawn up on lines similar to those of the sister Associations in Calcutta and Rangoon, and these were adopted at a General Meeting held on the 4th June 1901. Later an application was made to the Government of Madras for the grant of a license under Section 26 of the Indian Companies Act to enable the Association to register as a Limited Company, and on receipt of the same the Association was duly registered on the 25th November 1901. Mr. E. W. Orr, of Messrs. P. Orr and Sons, was elected the first Chairman of the re-constituted Association, a position he continued to hold until February 1909, when Mr. J. O. Robinson of Messrs. Spencer & Co., Ltd, was elected in his stead, and Mr. F. J. Dawes was appointed Secretary, which post he still continues to fill. Mr. Orr, the Chairman, was selected to represent the Association on the Harbour Trust Board, and a Committee was appointed, which at once got to work on several important measures then under the consideration of Government. The Committee addressed the Government upon several matters of imperial and local interest, among the latter being the improvement of the Madras Harbour, and a protest which they entered against the proposed action of the Government of Madras to amend the Harbour Trust Act in order to make the Board responsible, with retrospective effect, for the construction and maintenance of the protective revetment north of the harbour, which caused the amendment of the Harbour Trust Act to be held in abeyance, and finally altered in accordance with the suggestions made. In the early days of its existence, too, the Association devoted a good deal of attention to social matters, and in 1902 the Chairman showed himself to be strongly in favour of the early-closing movement. He urged that there were certain social duties pertaining to a public body such as the Trades Association, and he was strongly in favour of closing all trading establishments at 5 P.M. instead of at 6 P.M., thus allowing time for the assistant

employed at these establishments time for recreation. He was convinced that, even as an experiment, the plan was well worthy of adoption, that firms would be no losers by the shortening of business hours, but rather would gain by the improved health and consequent increased energy of their assistants, and that one of the most urgent needs of the Trades community was a social club, on the lines of the Dalhousie Institute at Calcutta. In a spirited address to the members of the Association the Chairman said:—"Gentlemen, what do we as an Association do for our assistants socially? I am afraid no satisfactory answer can be found, and yet I think none of you will argue that our responsibilities, especially towards those whom we have brought out from Home, ceases at the doors of our establishments." It is not pleasant to have to record that the efforts of the Chairman to secure more considerate treatment for shop-assistants ended in failure. As regards early closing, the proposal was on the whole favourably received, and it was agreed to by all but one firm; but the refusal of this one member caused the scheme to be abandoned. A proposal which emanated from H. E. the Governor of Madras, as Honorary Colonel of the Madras Volunteer Guards, as to the best means of promoting the strength and efficiency of that Corps, met with a more favourable reception. The letter expressed the hope that His Excellency might receive an assurance from the Association of its willingness to co-operate with him in endeavours to increase the strength and this assurance was readily given, the members of the Association expressing their willingness to support and encourage volunteering among their employees. Later on the early closing movement was revived and a compromise was effected by which all firms agreed to close at 5-30 P.M. instead of at 6 P.M. during the hot months. A Trades Sports Club was also organised to provide sports and games as a means of recreation for principals and assistants of firms.

The Garden Club which is appropriately named, being situated in the midst of extensive grounds and attractively kept gardens, may be mentioned as an offshoot of the Trades Association. It is a proprietary institution, the shares being held by members of the Trading firms in Madras. Outdoor sports are provided in abundance, there being four excellent Tennis Courts, quite the best in Madras, two Badminton Courts, a Croquet Lawn, Quoit pitch, and space for Football or Cricket practice; a miniature Rifle Range under the license of the Commissioner of Police is an additional attraction. The Club house is a two-storeyed building, well appointed and roomy, containing two Billiard Rooms with four tables, Reading and Bridge Rooms, whilst upstairs ample accommodation is provided for Concerts and other entertainments. The Club is open to ladies. Though primarily

Indian Coal.

APART from its subsequent use for the production of power, coal is one of the most important minerals worked in India, giving direct employment to about 150,000 persons, and its value at the place of consumption or port of export is greater than that of all other minerals taken together. Besides this, nearly the whole of the coal is employed in industrial processes in the country, under 10 per cent being exported to places outside India.

Nearly all the coal is obtained from the formation known as the Gondwana system of strata, corresponding in age to the Upper Carboniferous, and in Bengal this occurs in a succession of isolated areas surrounded by crystalline rocks and extending along the valley of the Damuda, commencing about 100 miles from Calcutta.

Another series of Gondwana areas is ranged along the valley of the Mahanadi, but coal is only being worked in the Mahanadi group at Umariam in the Rewa State.

Gondwana rocks also occur in the valley of the Godavari and Wardha rivers and extend to the Chanda district.

There are also the Satpura Coalfields, in the Central Provinces. The extent of the Gondwana rocks is here not known, as it extends under the Deccan trap, which also overlies a portion of the Godavari Gondwanas.

The quantity of coal mined last year (1908) was about 6 times the quantity mined 20 years ago, and the increase in recent years has been very rapid, as the table on page 383 will show. Indian coal has now displaced imported coal for most purposes, the total imports of coal being only 2 or 3 per cent of the quantity raised. More than usual was required from abroad last year (and is being imported this year also) on account of the production from the Indian mines not being sufficient for the requirements of the country.

A considerable quantity of wood fuel is still used on some of the Indian Railways, chiefly the North-Western Railway, the Madras and Southern Mahratta Railway, and the Burma Railway, but this is being gradually displaced by coal, the consumption of wood having been reduced as follows:—

1903	...	...	497,185 tons.
1904	...	...	395,297 "
1905	...	...	253,093 "
1906	...	...	248,224 "
1907	...	...	189,488 "
1908	...	...	165,085 "

The Indian coal mines for the most part consist of inclines cut into the outcrops where they appear on the surface. In comparatively few cases pits have been sunk, and no pits exceed about 800 feet in depth. The pits are usually equipped with appropriate machinery

for raising coal, but many inclines have no hauling machinery at all, while many others have hauling machines of small power and old pattern.

Coal can be carried out of the inclines in baskets from a distance, depending upon the gradient, of as much as 800 feet, and this is the method adopted in a great number of small collieries, owing generally to want of capital on the part of the owners.

The Indian coal trade has always suffered from deficiency of transport facilities. Rolling stock is provided for Indian Railways not so as to meet any demand that is likely to occur, but so as to carry with difficulty the traffic of an ordinary year, consequently, at the time of greatest traffic, that is after the grain and seed crops are harvested, there is more traffic than the railway can take, and stacks of bags awaiting transport may be seen at all railway stations whence grain and seeds are forwarded. Wagons are withdrawn from the coal trade in the endeavour to keep pace with the other traffic offered, although such times happen also to be times of greatest coal production. The period when the rolling-stock is deficient used to be only a month or two in April and May, but gradually this has extended until from September 1907 to September 1908, the principal coal carrying railway, the East Indian Railway, was unable to supply on any single day during the whole 12 months, the number of wagons required by collieries for the despatch of their coal. This year, in the reaction that has followed the coal boom of the last three years, the railway is for the first time able to meet the needs of the trade in the busy season. Trade depression has so reduced the coal demanded that the railways have been able to overtake the requirements of the coal transport.

The want of transport facilities has injuriously affected the coal trade in several ways. It compels the mine owner to stock part of his output at the pit head or incline mouth, instead of despatching it as it is raised; and on this account it prevents the installation of appliances for rapid and economical handling of the coal. It is not worth while for a mine owner to pay for apparatus which can directly load the coal into wagons at a minimum cost, because, when the coal comes up out of the mine, wagons are probably not available. Practically the whole of the coal mined in Bengal is therefore dumped on the ground at the mine to wait the time when the railway may be able to provide for its transport.

Shortage of wagons, by preventing the coal from being cleared from the mine, makes it impossible for the mine manager to know exactly what his output really is, and when the time comes to despatch the coal so stacked on the ground, it sometimes happens that there is a very large discrepancy between the quantity supposed to have been raised and the quantity actually despatched. Meanwhile there may have been a change

of mining contractor, possibly also a change of manager, and the mine owner finds that he has paid for coal which has not been raised. A premium is, therefore, put upon dishonesty by the deficiency of transport facilities. The excuse put forward by the railway is, of course, that the rise in the coal trade has been so rapid as to prevent sufficient provision for its transport, and it is therefore interesting to compare the increase in the production of Japanese coal and of Indian coal.

Figures are given below for the 22 years, 1886, (when the Indian production was slightly greater than Japanese), to 1907—when the Japanese production was 23 per cent. greater than Indian production. The quantity of coal required by India and by Japan respectively for their own consumption is generally about the same, but the Japanese exports are 3 or 4 times the Indian—

PRODUCTION OF COAL.

	INDIA.	JAPAN.
1886	1,388,487	1,374,209
1887	1,564,063	1,746,296
1888	1,708,903	1,990,600
1889	1,946,111	2,350,396
1890	2,168,551	2,566,551
1891	2,320,000	3,124,803
1892	2,531,000	3,149,857
1893	2,750,000	3,292,619
1894	2,980,000	4,233,443
1895	3,200,000	4,733,861
1896	3,400,000	4,978,890
1897	3,600,000	5,145,613
1898	3,800,000	6,641,608
1899	4,000,000	6,667,161
1900	4,200,000	7,369,068
1901	4,400,000	8,882,887
1902	4,600,000	9,586,832
1903	4,800,000	9,975,763
1904	5,000,000	10,599,710
1905	5,200,000	11,407,799
1906	5,400,000	13,043,874
1907	5,600,000	13,716,488
1908	5,800,000	.....

The distribution of coal in India is peculiar, and is by the Commerce and Government of India of the following in 1907 as follows:—

By the Government of India	3,474,000
By the Government of India	91,000
By the Government of India	1,100,000
By the Government of India	450,000
By the Government of India	667,000
By the Government of India	794,000
By the Government of India	131,000
By the Government of India	96,000
By the Government of India	1,100,000
By the Government of India	2,824,000
By the Government of India	420,000
Total production	11,147,000

These figures were, of course, only intended as approximate, and represent the first attempt made by a Government department to investigate the distribution of Indian coal, and subsequent inquiries have shown that in certain of the items regarding which information is the most difficult to obtain some correction is necessary. The consumption in inland steamers is stated as 450,000, but is nearer to 550,000 tons, and the consumption at collieries, placed at 10 per cent of the output, is greatly underestimated. The production of power at collieries for pumping, hauling, winding, etc., is alone responsible for a consumption of about 10 per cent of the output (it is 6% in Great Britain), and besides this there is the large quantity wastefully used by the mining labour for the purpose of cooking, and, in cold weather, warming themselves. As they do not pay for the coal, but take it as a perquisite, the quantity burned in this way is very much greater than is necessary. An average of 30 lbs. per day per *man* employed at collieries is probably not an excessive estimate; this would have amounted in 1907 to about 350,000 tons. The total quantity consumed at collieries was therefore probably 1,450,000 tons, and consequently the quantity taken for "other industrial and domestic consumption" was only 2,374,000 tons.

The following table shows the number of collieries and their total output in each coalfield in 1907:—

Coalfields.	Collieries.	Output.
Assam	6	295,795 tons.
Raniganj	157	3,981,659 "
Rajmahal	3	257 "
Giridih	6	750,374 "
Jherria	167	5,179,185 "
Palamau	1	81,873 "
Rajputana	1	28,062 "
Umaria	1	178,588 "
Punjab	8	60,749 "
Beluchistan	17	42,488 "
Central Provinces	4	134,088 "
Singareni	1	414,221 "

Judged by European standards, Indian collieries are extremely small, smaller even than appears from statistical statements, because, with one or two exceptions, collieries the output of which reaches 100,000 tons or over are really groups of mines and consist of a number of pits or inclines.

Of the 356 Indian collieries which produced coal in 1907, the latest year for which detailed statistics are available, one-quarter raised under 10 tons per day, one-third raised under 20 tons per day, and 252 raised under 100 tons per day; only 104, or two-sevenths of the total number, having raised as much as 100 tons per day.

The multiplication of small collieries, in the Raniganj and Jherria coalfields, is to a great extent due to the fostering care of the East Indian Railway. It has been the consistent policy of the East Indian Railway to cater especially for the collieries of the smallest size. The larger collieries have to pay about half the cost of constructing the sidings they require, and to pay interest to the railway on the remaining half, but collieries too small to be able to afford to construct sidings for themselves have sidings constructed for them at the

expense of the railways. In the supply of wagons, too, the smallest collieries are specially favoured. When, as has so often been the case, there are not enough wagons available to carry the output of all collieries, and only enough wagons can be supplied to remove, say, three-quarters of the output, what actually happens is that the colliery which requires twenty wagons a day only receives 15, but the colliery which asks for one wagon at a time either every day or every second or third day, receives the one wagon, because it is impossible to supply three quarters of a wagon.

The railway lines being laid out specially with a view to the convenience of the very small collieries, they are more expensively constructed than they would have been if they had regarded only the collieries with larger areas and larger output, and the interest on this added capital cost is an appreciable addition to the annual working expenses.

The distribution of wagons to the collieries from the railway stations in the coalfields is an exceedingly slow process because of the inconveniently arranged network of lines that have been built for the purpose, and because of the large number of collieries, some having more than one siding, to which wagons have to be supplied.

The actual cost of putting wagons into a colliery siding is much the same, whether there are twenty wagons or only one wagon, and the time occupied by the operation is also much the same, and therefore the working of the traffic of the small collieries is more expensive both in original cost of construction and in subsequent working expenses than the traffic of the larger collieries. Besides this, the delay to all coal traffic, owing to the extreme slowness of the distribution and collection of wagons, is such that it takes as long to distribute wagons to collieries and collect them again as would be sufficient to haul a coal train (without stoppages) for some 400 miles. This delay to all traffic represents a further increase of working expenses.

Unfortunately for the East Indian Railway they have undertaken all this extra expenditure of capital and of continuous working expenses, not only without any adequate corresponding return but actually without any return at all, for it cannot be supposed that they obtain the freight upon a single ton of coal more than they would if a quarter or more of the collieries did not exist. Ordinarily the larger collieries are able to supply all the coal the country requires and when they cannot do so it is for want of labour, the adjacent small colliery (by reason of its less depth or more open workings) being an attractive competitor for whatever labour the neighbourhood affords.

An unfortunate result of the expensive manner in which the East Indian Railway has chosen to work the coal traffic is that it seeks to make its charges as high on coal as on certain other kinds of merchandise, e.g., grain, instead of lower in proportion to the lower cost of transport of a mineral carried in full train loads, thereby making the larger collieries pay part of the cost of transport of the coal of the smaller collieries.

The rates charged by the two principal coal carrying railways for coal are as under:—

For distances up to 75 miles	...	0'318 anna per ton per mile.
Do. in excess of 75 miles up to 200	...	0'272 " "
Do. in excess of 200 miles up to 500	...	0'136 " "
Do. in excess of 500 miles	...	0'113 " "

Coal is therefore booked for the undernoted distances at the following rates:—

75 miles	...	0'318 anna per ton per mile.
200 "	...	0'287 " " "
500 "	...	0'197 " " "
1,000 "	...	0'155 " " "

These rates are lower than those charged for similar service in any other country, varying as they do from a third of a penny per ton mile for the shortest bookings, to one-fifth of a penny per ton for 500 miles, with all additional distances charged at one-ninth of a penny per ton mile.

Indian coal, with one successful exception, is mined on what is in Great Britain called the pillar and stall or the stoop and room system, in which a series of parallel galleries are cut in two directions, intersecting each other at right angles. This leaves square "pillars," as they are called, of coal between the galleries, which are left standing to support the overlying strata.

In Great Britain coal is mined either on this system, or on the longwall system in which a single gallery is driven and then widened indefinitely, the coal being all taken out completely and nothing left standing, the roof being supported by props or built up "cogs" of timber. When the widening has proceeded for some distance, and a sufficient area cleared of coal, the props furthest from the side that is being widened are removed and the roof allowed to fall in. This process is then continued, the cleared area being continually extended on one side, and the roof allowed to fall in on the other.

Indian coal does not lend itself to longwall working for two reasons. In the first place many of the seams are too thick for longwall working to be possible, only the thinnest seams now being worked being thin enough for this system; and secondly the "roof," the next stratum immediately above the coal seam, is almost invariably far too hard to be dealt with in a longwall working. What is required is that the roof should be of some fairly hard and tough material, that will yet bend and adapt itself under persistent pressure. This permits the roof to be brought down as and when it is desired merely by removing the props. Here, however, we often have a roof of a close grained sandstone, sometimes of the hard grey variety, an exceedingly strong material, and such a roof will not fall just whenever a prop is removed, but it will in some places remain up even though a considerable area is completely cleared. Then, perhaps unexpectedly, the roof begins to "talk," to creak and groan, and very shortly afterwards, or perhaps not till some days have elapsed, the roof cracks and falls in with a roar, and enormous masses of stone tumble into the mines. Such a roof it is impossible to control, props will not hold it in deep galleries in thick seams if it tends to fall, and until it cracks the removal of props does not bring it down.

The British practice in working the pillar and stall system is to cut away the coal in the pillars also as soon as the galleries have advanced sufficiently far to make the operation safe, and so to take out as much of the coal as possible. A certain amount of coal has to be left in the mine, in any system of working, as barriers or boundaries, to keep out water or fire, and to support the superincumbent strata in the immediate vicinity of haulage roads, main galleries and pits, which would be in danger of being choked up, and the ways into and out of the mine blocked, if solid pillars or barriers of coal of sufficient dimensions were not left to protect them. Losses from these causes are in many cases not more than 5 per cent. of the total coal, as in Somerset and some of the South Wales seams, and some parts of Fifeshire and of South Yorkshire which are worked on the longwall system.

The practicable limit of thickness of seam for long-wall working is 7 feet, above that thickness it becomes more and more dangerous; at the places where thicker seams are worked on this system great care has to be exercised. Thicker seams have to be worked on the pillar and stall system (or only a portion of the seam is

worked), and the proportion of coal left unworked is considerable, but the losses are not so much due to in-adequacy in the pillar and stall system as to local irregularities in the seam, and the variability of the coal as in thick seams in Fifeshire where the average loss of the surface as at present is 10 per cent. is lost; the losses in some parts of Derbyshire are lost from this cause; the loss to each other making it difficult for the Crow coal is close to the sea breaking into it. None of these difficulties occur, and the losses in coal that are very much greater. It is not possible to mine the coal left in the mine is cut into a pillar and stall system with the pillars left in place, the pillars are thinned, as far as is considered safe or profitable to leave altogether. The quantity of coal left in the mine according to the hardness and the nature of the overlying strata is often 50 per cent., even in thick seams, the difficulty in working thick seams, 30 feet in thickness, is very great, and in any mine a seam of 30 feet in thickness is mined with less loss of coal than a seam of 15 feet in thickness, but it is by no means profitable at present to take out a seam of this thickness, the financial disadvantage of getting out the utmost possible is that it is cheaper to move on to a new seam, rather than to minimise the quantity that is left in the mine.

As the working of a mine progresses, a considerable area is left worked out with the pillars standing, and as the pillars have been thinned until the strength of the pillars is taxed to support the strata above, a condition of almost unstable equilibrium is gradually brought about. There is then some fear that the pillars may at any moment prove unequal to the task demanded of them, and that they will be crushed under the enormous weight they cannot support, and in such a crush the coal will be greatly heated and is very likely to ignite, and the mine to be set on fire. Generally speaking, no precautions are taken to prevent a fire from spreading over the whole mine, by leaving solid barriers of coal at intervals so as to confine a fire to the part of the mine in which it originates, and when a fire occurs in such open workings, the whole of the mine in which the fire appears must be abandoned until the fire burns itself out, when it will probably be not worth reopening.

A fall of roof over an area left vacant by the removal of several pillars displaces a great body of air, and places this air under a considerable pressure, because the suddenness of the fall increases the air pressure more rapidly than the air can find its way into the galleries and out of the mine so as to relieve the pressure; and when the area over which a fall takes place is sufficiently large the air so displaced and driven along the galleries under pressure and at great speed, constitutes an air blast, which sometimes has serious effects. All moveable articles, such as coal tubs, timber, small coal, and men, are hurled along the galleries and thrown to surprising distances, and the cages have been flung up the shaft and in falling again broken the rope and dropped to the bottom of the shaft and been smashed there. The air blast is a kind of accident to which Indian mines will be more and more liable as larger and larger areas are left supported by thinned pillars, and in many cases mining leases do not permit the "drawing" or working out of pillars, so that the convenience of those who direct the mining operations and the requirements of the ground landlord alike contribute to a system of working which is wasteful of the resources of the country and has serious elements of danger.

No statistics are available of the quantity of coke made in India. With few exceptions coke is made in open "ovens," consisting merely of a rectangular space enclosed within four low walls. This filled level with the tops of the walls with small coal and dust, and then fired through small openings that are left in the bottoms of the walls, is allowed to smoulder and burn until it is considered to have coked sufficiently, and then water is poured onto it. This process results in a maximum production of some 40 per cent. or so of coke from a coal which in the laboratory gives over 70 per cent. Even this is entirely dependent on a personal factor, and often the judgment of the person in charge of the coke ovens is defective, with the result that the coal is insufficiently coked or is excessively burnt, or the coal was not properly stacked in the oven, or it was irregularly fired, and consequently this percentage cannot be depended upon in many cases. The yield of coke is therefore almost always low and the quality poor.

The East Indian Railway at their colliery in the Giridih coalfield, north of the Raniganj field, have

constructed a large battery of 30 ovens of the Simon-Caryk type from which tar and ammonia are recovered as bye-products. The production of good coke in these ovens from a given quantity of coal should be 50 per cent. greater, and of a better quality, than the production of an open oven, while the whole cost of operation should be recovered from the sale of tar and ammonium sulphate, the latter being a valuable manure. The great cost of such ovens will prevent their construction by most Indian colliery owners, an expenditure of £20,000 to £30,000 being necessary, because a battery of ovens must be erected large enough for continuous working. Moreover all coal is not suitable for coking in bye-product recovery ovens, its suitability depends on the amount of nitrogen in the coal which can be recovered combined with hydrogen in the form of ammonia, and on the amount of volatile matter which can be recovered as tar and oils. Probably about 16 per cent. is the least percentage of volatiles which it would pay to attempt to recover.

The miners or coal cutters employed on Bengal mines, which produce nine-tenths of the Indian coal, are chiefly Santhals, Bauris and Chamars locally settled, and a comparatively small proportion of men from the Central Provinces and the Upper Provinces, with a very few Kabulis and Mekranis.

Some of the labour is accommodated in lines or houses erected on the colliery property, but the greater part, as a rule, comes from the surrounding villages. The large companies have leases of villages in their immediate neighbourhood, sometimes quite large areas, and endeavour to make their property attractive for coal mining labour to settle on it, so as to have as large a population as possible from which to draw the labour required by the mines.

In very many mines the men work in 24 hour shifts, that is, they stay in the mine about 24 hours, working, eating and sleeping, as their fancy dictates. They go into the mine at whatever hour they wish and come out again when they think fit, and while they are below ground they do as much or as little work as they wish. There is no compulsion on any of these points; indeed any attempt to make them conform to regular hours of work or to the quantity of work to be done per shift, would result in the departure of the labour for another colliery where they could obtain the freedom to which they are accustomed.

The coal cutters are paid at a rate per tub filled, a tub holding from half to two-thirds of a ton and the payment for this is about five annas for "steam" coal, i.e., "large" or "round," and a less amount for slack or small coal.

The rates paid to all kinds of labour employed about a mine have increased considerably, from 20 per cent. and upwards, in the last 10 years, the wages of some kinds of skilled workmen, e.g., mechanics, have even doubled. This has been due to two causes, firstly the great increase in the price of food stuffs and, secondly, to the shortage of labour. The expansion of the industry has called for more labour than has been available, and there has consequently been a certain amount of competition between different mines for the labour, with a corresponding increase in remuneration.

Oddly enough, one result of the increased remuneration has been a decrease of work. It must be remembered that work is done, not to accumulate wealth, but to supply urgent needs, and in cases where a man can earn sufficient by working 5 days per week the result of an increase of 25 per cent. to their remuneration merely to reduce the working days per week from, say, 5 to 4.

Unfortunately the necessities of each colliery compel it to take all possible measures to obtain a full supply of labour even by overbidding its neighbours. This way mine after mine has been obliged to increase its payment for the labour it gets without a proportionate increase either in the number or the quantity of the labour employed; often there has been deterioration of the rapid increase of wages has in some cases so demoralised the men as to render them unfit to do the work for which they could previously be relied upon.

The most serious deficiency in recent years has been in coal cutters, but ample supplies of labour are available in other parts of India, and could profitably be brought to the coal mining districts. The reason why there has been no considerable attempt to recruit labour from, e.g., the United Provinces, is that if a collier were to spend a sum of money in bringing men from a distance in this way the men would be able to leave at any time that another colliery offered them a trifling inducement to transfer their services, there being, in the Raniganj field at least, no legal means of binding such labour to work for a given period in consideration of their fares being paid.

Thirteen years ago a labour inquiry commission reported that more labour was required for the coal mines of Bengal, that a central agency should be established at Benares for the recruitment of labour, and that notices should be circulated by Government throughout the North-West Provinces and Behar describing the attractions offered by coal mines. Nothing appears to have been done to give these proposals a trial, and it would have been impossible, in the face of the known difficulties, that any such scheme should be successful. A native does not regard such an agreement as binding and will break the agreement without hesitation; and as it is often difficult and always costly to enforce such an agreement it would in most cases be broken with impunity. The competition between collieries is enough to make any colliery willing to benefit at the expense of the next, and the jealousy between mine owners makes anything like combination remarkably difficult, and the jealousy being intensified between mine managers makes effective combination impracticable.

Some years ago the Indian tea planting industry passed through a curious phase. Each manager had learned tea planting partly by what he had seen done on his garden and partly by the painful and expensive process of trial and error, and all methods were empirical to the last degree. Each manager quite naturally believed that he alone had evolved the only correct method of tea growing and making and did everything possible to prevent other planters from seeing anything of his cultivation or manufacture, lest they also should learn the jealously guarded secrets and should be able to compete with him on equal terms.

The coal mining industry has recently passed through a similar phase, but the extension of coal mining and the meetings of the Mining and Geological Institute for the discussion of technical matters connected with mining, have done a great deal to minimise the jealousies of the past, and permit us to hope that real and effective combination for all purposes for the benefit of the coal industry may some day be a realised fact.

The most diverse opinions are expressed as to the quality of Indian coal compared with British coal, and it is exceedingly difficult to obtain really accurate data for comparison. Analyses are always made from small samples and the quality of Indian coal varies so greatly in different parts of the same seam that from any consignment or wagon load, or even from any miner's tub,

two pieces may be selected differing to an unsuspected extent in calorific value. It is therefore improbable to the last degree that any sample selected represents even approximately the average value of the consignment or of the wagon load, and it is therefore still more impossible to judge of the average value of the output of a colliery from the analysis of a sample, no matter by whom selected.

With much hesitation a number of analyses of Bengal coals (with a few from other countries for comparison) are given below; these are printed with the reservation that they prove nothing regarding the average value of the seams from which the samples were taken. The average value of the seams may be considerably worse or may equally be better.

Ua. um. Assam.	r. lin.	Ua. um. Raniganj.	Kumardubhi. Raniganj.	Mohpani. Central Provinces.	Khost. Baluchistan.	Jheria 14 A seam.	Anthracite. S. Wales.	Anthracite. Penn.	Westphalian.	Saxon.	Bohemian.	Bohemian Cannel.	Wigan. Lancs.	Merthyr. S. Wales.	Thick coal. Staffs.	Lignite. Hungary.
				67'65	71'48	78'09	92'56	90'45	78'94	68'75	71'97	67'41	83'07	86'80	78'57	55'94
				4'37	5'26	4'59	3'33	2'43	5'22	4'91	5'36	5'98	5'53	4'25	5'29	4'26
				10'75	9'72	6'33 1'40	2'53	2'45	7'59	11'05	10'18	8'87	8'08 2'12	3'06	12'88	33'23
				0'43	2'78	0'45	..	..	..	..	..	..	1'50	0'83	0'39	4'27
				9'73	7'60	8'11	1'58	4'67	6'62	7'50	8'88	14'43	2'70	4'40	1'03	3'20
				7'07	3'16	1'03	..	..	1'64	7'79	5'61	3'33	0'91	0'66	11'29	10'84

	Deshergaur. do.	Joyramdanga. do.	Seebpore. do.	Chidli.	Jheria 11 seam.	Jheria 12 seam.	Jheria 12 seam.	Jheria 13 seam.	Jheria 14 A seam.	Jheria 14 seam.	Jheria 14 seam.	Jheria 14 seam.	Jheria 17 seam.	Umania. Central India.
56'54	51'36	54'58	64'80	63'20	60'23	61'36	62'60	60'19	58'85	63'68	65'88	45'99		
0'55	38'03	37'11	47'83	21'55	23'87	26'28	26'85	21'22	26'79	25'70	21'82	39'07		
0'35	0'79	0'45	0'42	0'79	0'83	..	0'93	0'45	0'83	..	..	1'02
9'78	10'61	8'31	7'27	14'55	15'90	12'36	10'55	8'11	14'36	9'34	10'72	14'94		
1'05	..	..	..	0'70	..	..	..	1'03	..	1'28	1'53	..

The

Cultivation of Rhea in India.

RHEA: *Boehmeria Nivea*: a nettle variety indigenous to Northern China, the Straits and Assam, in which latter place natives use its fibre for fishing nets.

For many years past the strength and beauty of the fibre yielded by various species of *Urtica* have been fully recognised as superior in every respect to all known fibres, either for textile or other manufactures. The fibre, technically known as Rhea, or *Ramie*, more popularly as "China Grass," and in France as *Vegetable Silk*, has long been the admiration and despair of experts and inventors, who have striven to discover some means of separating it from the bark and the wood of the plant to which it closely adheres, and to free it from the resinous or gummy matter in which it is enveloped.

Dr. Royle, as Industrial Adviser to the India Office, who has had considerable experience with the fibre, once summed up an account on China Grass in the following significant words: "When some of the improved methods of separating fibre are successfully applied to such plants as the Rhea and Wild Rhea, the benefits to India and the world will be incalculable, for they are exceeded by none in fineness, excel all others in strength, and may be fitly compared to the trunk of an elephant, which can pick up a needle or root up a tree."

Notwithstanding the many failures, it may be confidently predicted that the time is not far distant when the difficulties of manufacture will be a thing of the past. The subject has now become one of very keen interest to a greatly increasing number in widely divided places and without a doubt a splendid fortune awaits the inventor of a really effective and reasonably priced process for dealing with Rhea. A fibre acknowledged on all hands to be one of the finest, if not, in the language of Roxburgh, the finest of vegetable fibres, must come to the front and assert its merits, and when this is so India should not be behind in the matter. When all difficulties of manufacture have been overcome it will be solely a question of quantity in production—in short, a planter's question.

Rhea can be grown in unlimited quantities in India, Burma, the West Indies and other British possessions, and has this advantage over cotton flax, etc., that once planted and in full growth, it gives from four to six crops a year for about a century, without other agricultural cost than irrigation, manure, thinning, and cutting.

About 10,000 tons of fibre are produced in China, of which 4,000 tons are shipped to Europe under the name of China Grass and the textile sold as *Ramie*. The balance of 6,000 tons is entirely consumed in China and Japan. The Chinese strip the bark from the stems by hand, and with a wooden knife-shaped instrument they scrape the bark which covers the

fibre; they rinse it in the streams or rivers and dry it in the sun. The China Grass has so far been grown exclusively by villagers around their huts, and after their day's work the whole family, elders, women and children collecting round their home, make themselves busy with decorticating their garden produce. The middlemen collect the dry fibre from the villagers and send it to Shanghai, Foochow, and other centres, where it is baled and shipped. A family of 4 will decorticate about 800 stems a day, representing 5 pounds of dry fibre, the value of which in Europe is about 15 pence or probably only half that amount for the grower—the industry at that rate was bound to remain a most limited one, unable to provide a living to any community. The Government of India, realising the importance the industry would take if the plant could be raised and the fibre produced on an industrial scale, offered about 25 years ago a reward of £5,000 for the invention of a machine capable of decorticating large quantities of Rhea at a low cost. Innumerable were the machines that were put forward but none of them was found suitable and the premium was withdrawn some 10 years ago. Since then M. Faure of Limoges, France, invented a machine which after many experiments, alterations and improvements, is now claimed to have solved the problem and to form the connecting link, so long sought for, between the grower of Rhea and the spinner and manufacturer of the fibre, and that its effect will be to place Rhea on the list of everyday textiles to be produced and utilised without difficulty in any desired quantity. The battle has been long between the chemist and the mechanic concerning the rôle each has to play in the production of Rhea, and, until the point has been definitely settled, the fibre, notwithstanding its magnificent qualities—strength, lustre, ductility, capacity for taking colour by printing and dyeing and for mixing with other fibres—has been under a cloud. The manipulation of the stems in the dry state so long advocated has been definitely acknowledged to be erroneous, experience having proved that to obtain the full advantages of the many brilliant qualities of the fibre the stems must be treated in the green state. The chemist has insisted that as little as possible must be done to the green stems by machinery, leaving the main treatment to be carried out by chemicals. The mechanic has retorted that the fibre is seriously damaged by chemical processes, which take away its strength, its lustre, and its ductility, and that therefore machinery must play the important part; and so for many years the battle has been waged, first one side then the other gaining the victory.

The chemists have long ago found out how to disconnect the fibre from the wood and bark, and having failed to do it at a cheap enough rate and without injuring its strength, the victory at present must rest

with the machine, and so far the only machine that has given encouraging results, is Faure's, the monopoly of which has been acquired by the Bengal Rhea Syndicate, Ltd., Calcutta (Managing Agents, Messrs. Jules Karpeles & Co.), who are launching the industry in Behar. This is said to be the first attempt to work Rhea on a large scale and the Textile Industry in Europe and America is watching its progress with the keenest interest.

Rhea Fibre has not only proved to be superior to flax and linen, and almost equal to silk, it has lately been worked into several new materials. We may mention among the most prominent ones the imitation straw plaits, to manufacture ladies' hats. Straw takes the colour only on the surface, and the sun and seaside breeze will after a few days leave very little of even the deepest and fastest colours, whereas Rhea fibre pressed into plaits, after having been dyed through, will resist anything and never lose its colour. It has been found also that incandescent Gas or Kerosine-lamp mantles, made out of Rhea, give a brighter light, are not so fragile, and consume 50 per cent. less of chemicals. These two materials alone are supposed to represent more Rhea than India will be able to produce in the next five years, not to speak of the various materials that have always been made out of Rhea—China Grass.

The Rhea Fibre was first started experimentally by the Government at Dalsing Serai, Tirhoot, under the supervision of Mr. J. S. S. The first year 60,000 stems being cut, and giving about 5 feet, giving over 240,000 stems plant at which height it is cut, giving a weight of 20 lbs. of the stripping of leaves. The stems gave 48,000 lbs. of stems, from which 1,380 lbs. of fibre could be extracted (the stem) or 1,380 lbs. of fibre. The cost of cultivating the land and shipping the fibre is estimated, the figures being the crops to yield only 2½ acres to produce the price of £26 per ton at the price of contract for several years, producing, would be the price of the industry on a large scale, passed with the following terms: The Syndicate, broadly terms provide all the land and the machinery (the machine of Faure's Decorticator) and profits be equally divided.

Bagmati	500 acres.
Bagmati	300 acres.
Bagmati	500 acres.
Bagmati	500 acres.
Bagmati	500 acres.
Bagmati	500 acres.
Bagmati	300 acres.
Bagmati	300 acres.
Bagmati	300 acres.

Great difficulty was experienced in finding roots to plant Rhea at the various factories. Several consignments received from Assam, the Madras Presidency and from the Government Botanical Gardens in India, proved very disappointing, and in any case not sufficient to start on an industrial scale. The propagation had to be carried out from nurseries established at each place, and as neither the cultivation nor the nature of the soil required for proper growth of the Rhea plant were familiar to the planters entrusted with the work, they had to fight their way, and much time and unnecessary work was wasted. Planting became general, i.e., sufficient nurseries had been established at the above factories by end of 1903 when propagating was started on a somewhat extensive scale, i.e., about 50 acres being accounted for. It became evident from the beginning that only light sandy soil would answer, and the roots failed to take in all saltpetre and ossa land; great annoyance was caused by white ants attacking the young roots, and especially the young stem cuttings from which propagation was attempted with success, whenever white ants did not interfere: planting during the rains disposed of this pest in many cases, but in Champarun, planting from stem cuttings had to be abandoned, but was very successfully replaced by tops of roots, which answered the identical purpose, namely not to affect the existing plantation, by transplanting the roots bodily and dividing it in small cuttings of roots for distribution over the new area to be planted. Propagating from stems and from tops of roots taken from a field one or two years old, leaves that field undisturbed in its stage of progress. Each plant has been shown to throw within a year from 15 to 30 shoots or stems, but to do so, the land has to be kept very clean of weeds, and wherever the cultivation has been neglected and weeds allowed to grow simultaneously with Rhea, the latter has invariably been slow in growing and in expanding. A field half weeded and half uncultivated gave 3 to 5 shoots in the uncultivated portion, and 10 to 15 in the cleaned portion.

Nor is the use of a Tummany, or hoeing of the field after each cutting, a sufficient cleaning in lands where weeds take rapid possession and propagate luxuriantly: however costly it may prove, it will always pay in such lands to clean each plant by hand, i.e., to eradicate the weeds around each plant, which cannot be done except by hand for fear of injuring the Rhea. So far no land growing Rhea for upwards of 3 years has shown any signs of deterioration, where proper cultivation has been carried on: the only symptom of root being affected by age, is in the top growing woody and preventing fresh shoots from coming through. It is intended to chop off the woody parts of the root every year with a *kodalee* which will dispose of this objection and give fresh life to the plant.

The question of manuring has not as yet been dealt with except at time of planting, when of course the plant grows best and quickest where manure (Indigo seeth) has been applied liberally. Unmanured land gives very slow and poor results and would very soon be exhausted, the nettle variety being known to be most trying for the soil. It is generally admitted that since the leaves, the bark and the wood can be and should be restored to the land from the 4 cuttings, i.e., all that has

been taken from it, excepting the 3 per cent. fibre, that no further manuring will be necessary. So far this has not been put into practice at any place, as no decortication was carried on, on any scale. Dalsing Serai tried manuring on experimental plots and the results were among the best as compared with other manures, but the proportion of manure, say of Rhea seeth, given per acre, could not be estimated as to actual quantities available per acre when once properly started. Dalsing Serai and Mooktapore where 60 and 40 acres respectively have been worked on full crops have now a small supply of fermented refuse which will be used for manuring. The leaves are stripped from the stems at time of cutting and left in the field on top of Rhea plant. The well-known fact that Rhea cannot stand water-logging was proved with a vengeance when all the Rhea in low lying land and in such parts of fields where water collected during the heavy September rains, was entirely annihilated, all the roots having become rotten throughout, and the fields show exactly where the water-logged by the gaps in the rows of Rhea plants. Several hundred acres planted with Rhea in fields which were supposed to be safe from water-logging, have thus been lost, and the planter has been taught an object lesson as to choice of land. On the other hand, a minimum average of 45 inches seems to be necessary to ensure proper development of the Rhea cultivation, and the experiment at Gopalpore and Rampore in Chuprah showed that no sufficient returns could be expected from these parts, where the rainfall has not exceeded 35 inches on an average since 1902. The cultivation has been abandoned at both places and progress at the other places stands as follows:—

Secured at Dalsing Serai	400 acres	against	500
" Pandoul	323	"	500
" Bachour	390	"	500
" Mooktapore	100	"	300
" Mukwah	300	"	500
" Turkoleah	340	"	500
" Gokoolnugger	100	"	300
Total	1,953 acres		3,100

The planter has still to find out exactly the best time to cut the plant: from an economic point of view it looks as if it should pay best to cut the stems as soon as the fibre has become mature, so as to secure as many cuttings as possible, but it is not certain whether the stems will not contain a larger proportion of fibre as they are allowed to grow higher and become thicker: on the other hand, there is the danger of the stems becoming woody, the decortication then becoming more difficult and the waste being enhanced, as also the fibre being brittle when too old, which has actually been established by spinners.

So far the instructions with planters, based on the custom of China Grass manufacturers in China, are to cut the stems when they show a brownish tint up to about 10 inches from and above the ground. One of the problems connected with the Rhea Industry was the drying of the fibre, which contrary to Hemp and Jute, contains, besides the moisture, about 30 per cent. of gummy resinous matter which, in the moist climate between June and October, when the bulk of the Rhea

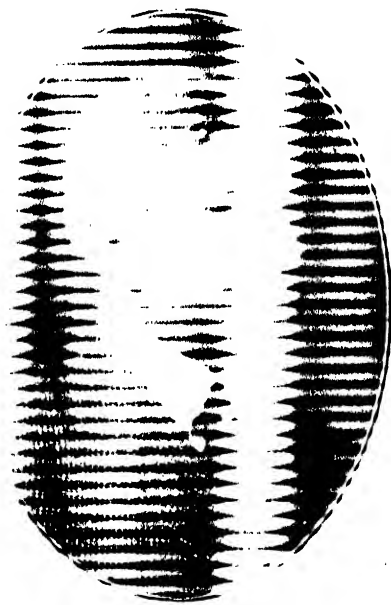
has to be worked off, it is utterly impossible to do except artificially: this is being done by disposing the water through a centrifugal hydro-extractor, a hanging up the fibre in a closed tunnel fed with hot, driven by an aero-condenser. Experiments carried at the Dalsing Serai Factory have proved quite satisfactory. Rhea fibre being hydrophil in the extreme it has to be screwed into bales as soon as it leaves the dry tunnel to avoid its attracting fresh moisture and rotting when heaped or baled in a moist state.

A Rhea Factory comprises decortication machine under sheds with plenty of room to move about, centrifugal hydro-extractor, drying tunnel with aero-condenser under roof, large godowns to house the Rhea and baling hand press also under roof. A 20-horse power engine is sufficient to drive all the machinery required for a 500 acres factory. The fibre having to be thoroughly rinsed, while passing the decorticators, sufficient supply of water should be at hand. The stems should pass through the decorticators as soon as possible after being cut and no injury seems to be done if the operation takes place within 12 hours; after that limit the stems are apt to dry up, and the decortication rendered difficult if not impossible, the elasticity of the fresh plant, which, combined with the spring application of the machinery, constitutes the principle of Fav decortication, having disappeared or been lessened. In the time of Mahai a delay in bringing the stems to the Central Factory is apt to occur, the risk of loss of plant has to be taken into account, and appears to be successfully avoided by keeping the stems that cannot be passed through the machine within 12 hours, and water in bundles of 30 to 40 stems, until they can be decorticated. Experiments up to 48 hours steeping showed that no injury was done and the decortication was as perfect as with fresh cut stems. The hydro-extractor disposing of over 70 per cent. of the water, it is not necessary when taking the fibre out of the centrifugal hydro-extractor, where it is brought straight from the decorticator, to twist the fibre before hanging it up the drying tunnel with a view of wringing out the water, the twisting leaves a wavy mark on the fibre which the spinners object to. No beating of the fibre should take place either, as it is apt to break the fibre. Parallelism of the fibre being one of the main points for the degummer and spinner it is essential that throughout the process of manufacturing, from passing through the decorticator to baling in hand presses, the fibre should be always kept straight and free of entanglement.

It is evident that as the Industry progresses, the anomaly of shipping and paying freight for the 30 per cent. gum which the fibre contains and which the spinner has to eliminate before he starts treating the fibre, will have to be dealt with. So far the spinners, who have their own methods of degumming which all vary somewhat, and are all supposed to be the only right one, insist, one and all on the fibre supplied to them being free of chemical treatment of any kind, and will not buy it if in exactly same condition as the China Grass they import from China: this applies to Ramie manufacturers, and it is expected that spinners of flax and linen will eventually take Rhea degummed local, until spinning and weaving is done on the spot and the manufactured material is shipped from India.

Commercial & Industrial.

Mr. ALBERT ABID—Head Partner in the firm of Messrs. A. Abid & Co., Agents and Importers, Hyderabad and Secunderabad, Deccan, born of European parents at Julia, Ispahan, Persia, February 11, 1848. He is the eldest son of the late Mr. Abid of Teheran, Persia. Mr. Albert Abid was educated at Julia and Calcutta. His father was a British



and came to India in 1862 to start a business at the Lion Hill. Under the firm turned very much of Deccan. Some of the business in Hyderabad and Secunderabad.

Secunderabad, Hyderabad, in the management of business affairs in age Mr. Abid want to establish a factory

and also a Factory for the manufacture of Aerated Waters, the only establishment of this kind in the Deccan which is worked by steam power. Following on the success of this Factory he started a second one completely equipped with high class machinery which was erected for him by one of the leading English firms. He has also established an electric motor and engineering department. These Factories give employment to many hundreds of poor families, and as an employer Mr. Abid is deservedly popular. The factories turn out thousands of dozens of pure mineral waters daily, and many tons of ice. In addition to his other ventures Mr. Abid has established two Pharmacies, one at Hyderabad and the other at Secunderabad. At these establishments there is a fully qualified European Chemist constantly in attendance, assisted by a competent staff. These dispensaries are open night and day and are a great convenience to the residents of these two cities. Mr. Albert Abid is a much travelled man. He has visited nearly every part of the globe and speaks fluently several languages. His personal influence has done much to further his business connections as he has imbued his staff with his own tact and courtesy, so that it is a pleasure to the public to have dealings with the various businesses he owns and controls. For many years, Mr. Abid filled the honourable and arduous appointment of Chamberlain to His Highness the Nizam of Hyderabad, which in his later years he had to resign owing to failing health. He, however, retains the respect and confidence of his Royal Master, who granted him a hand-

some pension on retirement and made each of his children lifelong Munsibdars. In 1882, Mr. Abid married Annie, second daughter of Mr. W. Evans, of Llantilla, Porthoney, Monmouthshire, and granddaughter of the late Thomas Evans, Esquire, of Colver Hall, Radnorshire, by whom he has four children, two sons and two daughters. Mr. Abid's commercial enterprises under



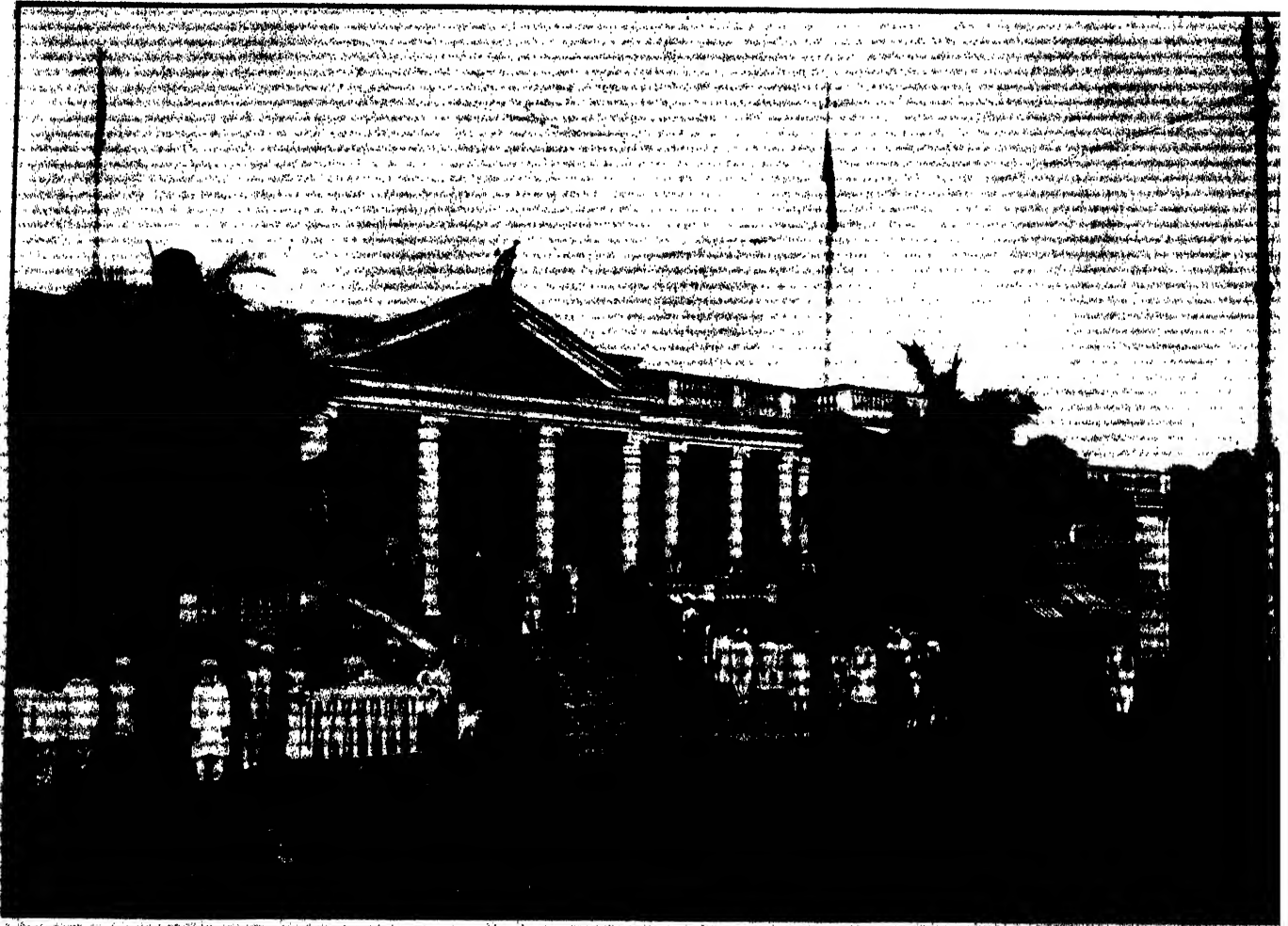
Mr. A. M. S. Amm.

his able management, have all turned out successful. Besides bringing him wealth, they have contributed to the prosperity of the country of his adoption both by providing employment to a large number of families and by contributing to the comfort and convenience of the people. Further, one of the causes of Mr. Abid's popularity is that the money he has

made in the country he largely spends in the country. All the factories belonging to this firm as well as the electric motor and engineering department are now under the management of Mr. Alexander Malcolm S. Abid, his younger son. Mr. A. M. S. Abid was born in India in the year 1884.

Works, Bedford, whence he passed out as a trained Mechanical and Electrical Engineer. Mr. Abid, junior, is skilled in all outdoor sports and is a keen Cricketer and Footballer. He is devoted to the Engineering profession in which he displays great ability. Mr. A. Abid's eldest son has adopted the

been a characteristic of the Ruli family in the Deccan, and among the loyal hearted citizens who followed the example set by the Ruler, Messrs. Abid & Co. were in no wise behindhand. The extensive business premises Chudderghat were flooded with electric light, and decorated with



THE HEAD OFFICE OF MESSRS. A. ABID & CO., HYDERABAD.

and with his elder brother was sent to England for his education which was carried out at first under a private tutor until he was 12 years of age when he was sent to Clifton College. On leaving school he was apprenticed for four years to Messrs. W. H. Allen & Co., of the Queen's Engineering

law as his profession and is still in England.

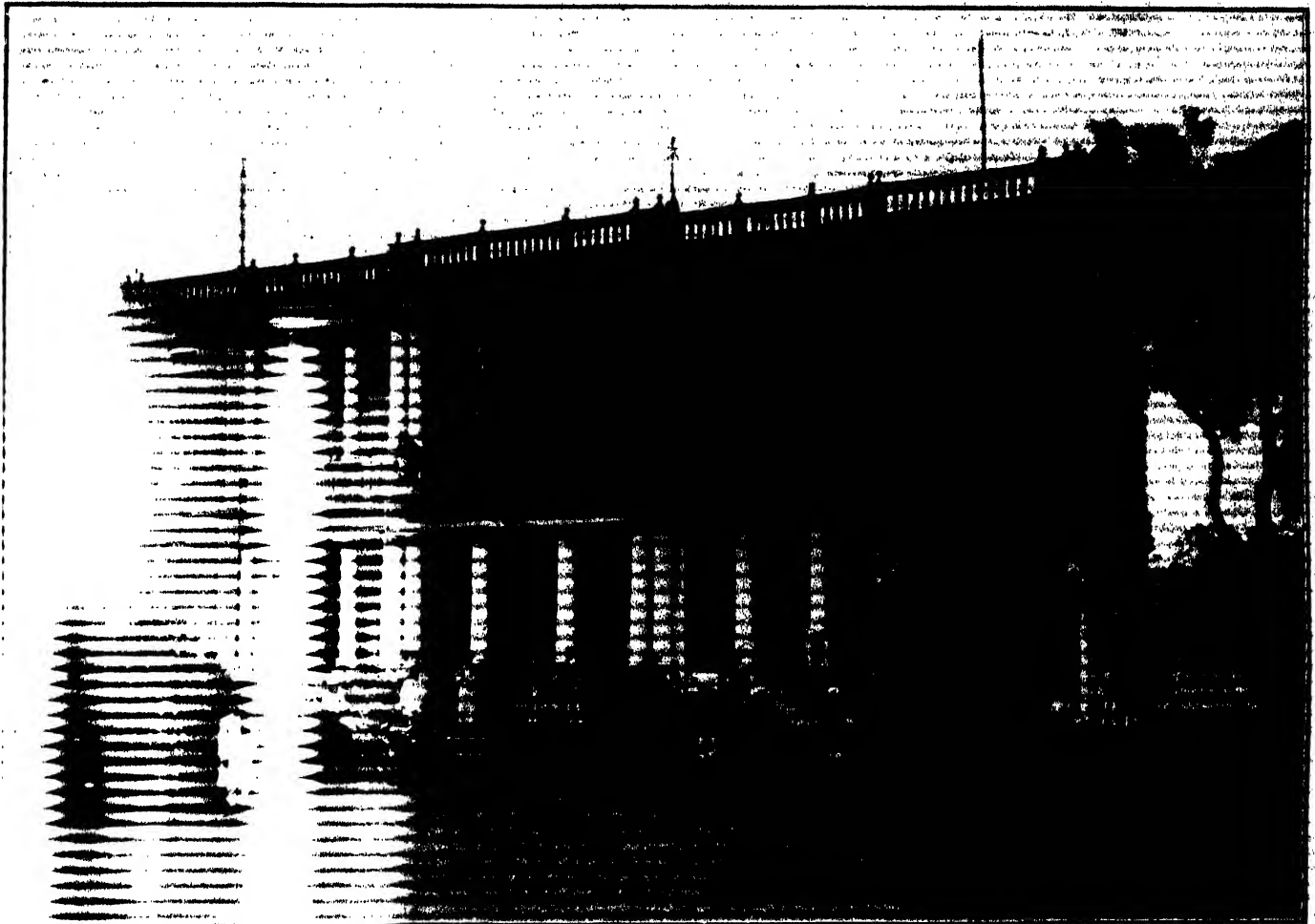
On the occasion of the celebration of the Jubilee of Her late Majesty the Queen-Empress in 1897, the opportunity was taken to perpetuate that thorough loyalty and sincere good feeling towards the British throne that has for long

numberless red globe lamps, which over the main entrance was a illuminated transparency, showing the coat-of-arms of H. H. The Nizam. The occasion was one of general rejoicing for which official merchants, tradespeople and the public generally had made great preparations. Every palace, house

and shop made a display, alms were freely distributed to the needy, and there were general rejoicings throughout the Nizam's dominions. In the decoration of the city and the suburbs the firm of Abid & Co. played a conspicuous part, and acted

distress caused by the floods. The terrible catastrophe that befell the State at the end of September, 1908, involved many thousands of people in swift and unexpected destruction, while the homes and property of

authorities would have found it impossible to cope with the distress that was encountered on every hand. A relief fund was promptly opened, and measures taken to keep down the price of grain. To all that was done to afford



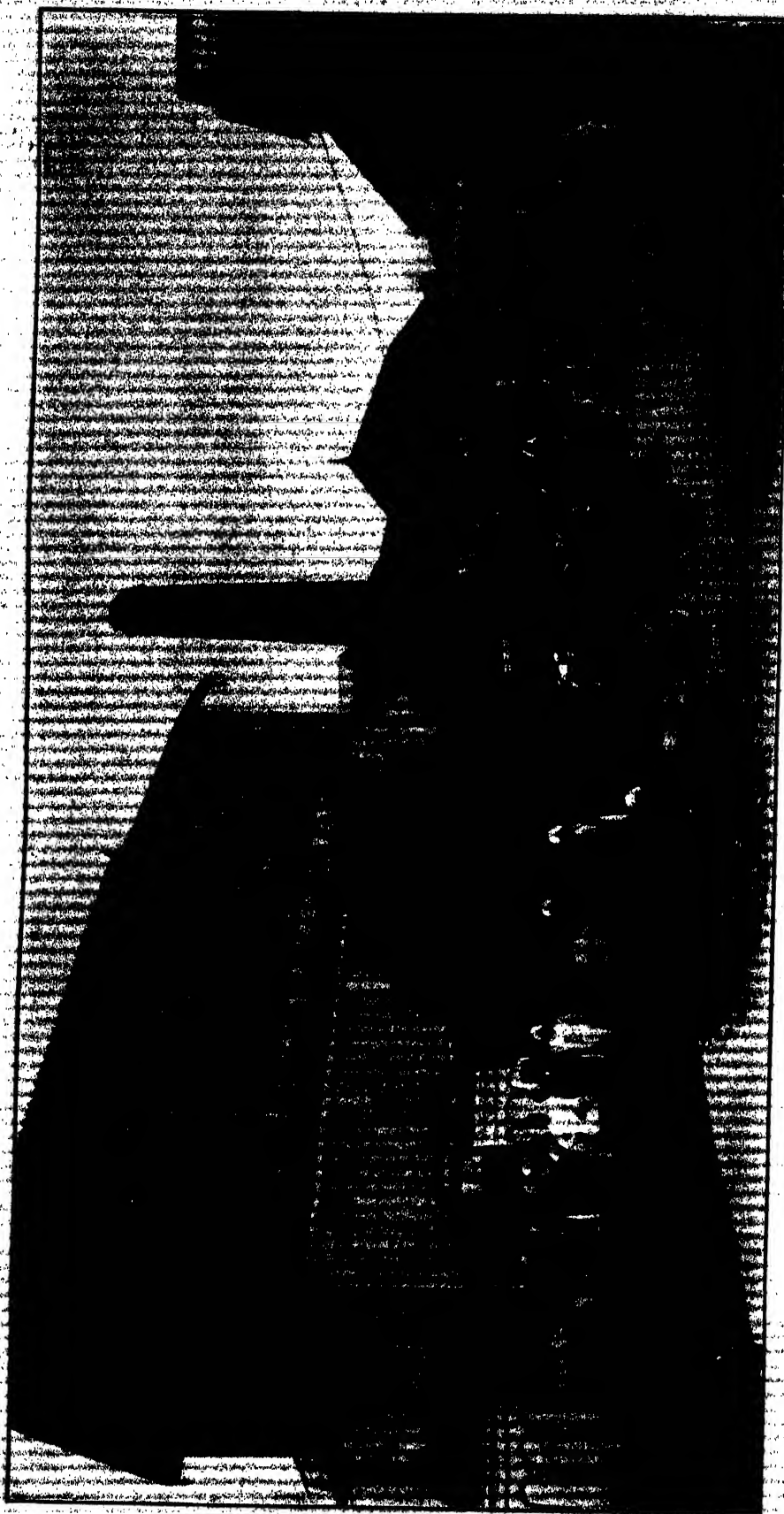
Messrs. A. Abid & Co.'s SECUNDERABAD BRANCH.

throughout the city, their efforts in a more recent source of the firm, the Nizam of Hyderabad, in the relief of the distressed.

relieving the distress of the common people generally, and in the widespread

thousands of others were ruthlessly swept away. In this calamity, for which no living memory can find a parallel in India, the resources of the State were severely strained, and without the aid of public spirited individuals the

relief, Messrs. Abid & Co. accorded generous support, and in common with other citizens, joined efforts and co-operated with the Government of the Nizam in relieving the prevailing suffering.



Messrs. A. ABED & CO.'S ICE AND MINERAL WATER FACTORIES, HYDERABAD.

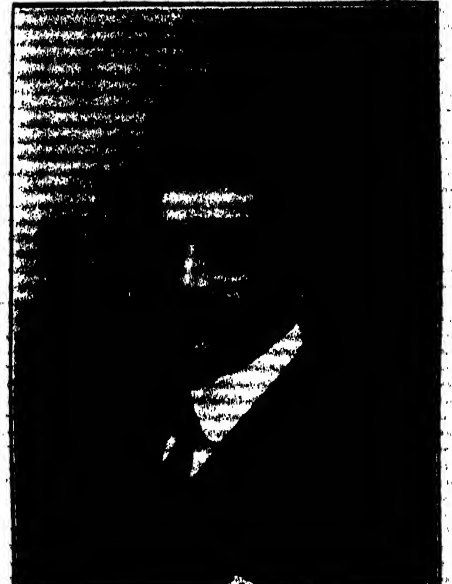
Messrs ABRAHAM & COMPANY, Estate and General Auctioneers, Furnishing Warehousemen and House Agents, South



Mr. Walter Abraham now conducts the business of the firm entirely on his own account. He was born at Bellary where his father was in business as a Merchant and Distiller. He was educated at Bishop Cotton's School, Bangalore. He is at present a member of the Governing Committee of that school. He takes great interest in all local matters and is a Commissioner of the Civil and Military Municipality of Bangalore, and President of the Bowring Institute, and also a member of the Bench of Magistrates.

AKOLA & MID-INDIA SPINNING & WEAVING & MANUFACTURING Co., Ltd. Registered in Bombay on July 23, 1906, with a capital of Rs. 7,50,000 for the purpose of establishing Cotton Mills at Akola in Berar (a district which is generally fortunate in

with which the Mills were started. In consequence the result of the enterprise has been highly successful. Great care has been exer-



Mr. PEROZSHA K. BANJI.

cised by the Directors in providing sanitary blocks of buildings adjacent to the Mills for the purpose of accommodating the Mill-hands; Akola being a place where house accommodation is small and rents high. In this respect the Akola Mills are in a better position than the majority of Bombay Mill owners, who, owing to the rise in the value of land and their previous neglect of the subject of housing their workmen, find themselves now in a somewhat difficult position.

Mr. Gopaldas Trijumjee is the Managing Partner in Bombay and Calcutta of the well-known firm of Trijumjee Jivandas. He hails from the enterprising Bhatia community who have contributed so largely in expanding the trade of Bombay. His father, the late Mr. Trijumjee Jivandas, occupied a respected position in Cutch as leading merchant, and his business extended to various parts of India, Persia and Africa. He opened firms at Cutch Anjar, Bombay, Karachi, Calcutta, Muscat, Busra, Naraingunge and Rangunge. Inheriting the keen commercial instinct of his father, Mr. Gopaldas joined his father's firm at the early



Mr. GOPALDAS TRIKUMJEE.

its cotton crop owing to the fact that a failure of the monsoon is seldom known in those parts), and in order to save railway freight, ginning, pressing and other charges by being in the centre of a country producing the raw material. The Mills were started on a bold scale, with 21,408 spindles and 418 looms, to take advantage of the favourable rates for machinery current at the time, and the latest improved principles were introduced in the plant

business of the firm entirely on his own account. He was born at Bellary where his father was in business as a Merchant and Distiller. He was educated at Bishop Cotton's School, Bangalore. He is at present a member of the Governing Committee of that school. He takes great interest in all local matters and is a Commissioner of the Civil and Military Municipality of Bangalore, and President of the Bowring Institute, and also a member of the Bench of Magistrates.

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age of twenty and soon mastered all the varied subjects of his trade. His alert mind was attracted to the remunerative coal business in India, and he subsequently acquired Ballihari, Jeenagora, Parbad, Joyrampore Dhadka, Katmarki and Madankatta Collieries, and is a partner in several other collieries. The coal mines under his control have been making handsome profits, and his other varied branches of business have rapidly expanded under his guidance.

In 1906, he diverted his attention to Mill industry and, in collaboration with Mr. Vassonji Bhagwandas, he floated the Akola and Mid-India Spinning, Weaving and Manufacturing Co., Ltd., and this Company's Mills have already started working under very encouraging circumstances.

The Agents of this Company are ably assisted by their energetic and accomplished Secretary Mr. Peromsha K. Bamji, who is a Parsee. Having graduated at an early age he underwent a course of training in law, a profession which he abandoned in favour of the Mill industry. The Head Offices of the Company are under his supervision.

Mr. VASSONJI BHAGWANDAS is a scion of the leading Bhatia family of Bombay, founded by Seth Kima Govind, the family of which the late Mr. Lakhmidas Khimji was so prominent a member. This family is known for its great enterprise and resourcefulness both in matters communal and commercial, high integrity and charity. Mr. Vassonji possesses in a marked degree the great and noble traits of his family. Born in 1878 he received his education in the St. Xavier's School and, long before he completed his teens, his natural aptitude towards commerce and industry led him to join the Mill Industry under the care of his cousin, Mr. Dwarkadas Dharamsy, the well-known merchant and Sheriff of Bombay, with whom he worked in connection with the Bombay Cotton Manufacturing Co., Ltd., and Tricumdas Mills Co., Ltd. After acquiring a mature experience in the Mill Industry under the fostering care of Mr. Dwarkadas he separated from him to start an independent business in the

Coal and Mill Industry, and in 1906 he floated a Company known as the Akola and Mid-India Spinning, Weaving and Manufacturing Co., Ltd. This Company started work by building mills at Akola in the Berars with 21,000 spindles and 418 looms. The ceremony of



Mr. V. BHAGWANDAS.

starting the mills was performed by Mr. Crawford, the Deputy Commissioner of Akola, who is evincing much interest in the cause of Indian industries.

Rai Bahadur B. P. ANNASWAMY MUDALIAR, Engineer and Contractor, Bangalore, K.-I.-H. Born in June 1849 at Bangalore Cantonment. Educated at the Mission High School, in the same city. While still attending school he commenced business as a Contractor to Railways, the Public Works Department and the Commissariat Department. He still follows this business which he has greatly enlarged. In the course of his business he has erected many public buildings, among them the Public Offices Building. He received the honour of the Kaiser-i-Hind Medal, 2nd class, for carrying out the work in the erection of the above building to the satisfaction of Government. Rai Bahadur Annaswamy has been connected with Municipal matters at Bangalore for more than twenty years, and during this period has served

continuously as a Municipal Commissioner of the Civil and Military Station. He is also a member of the Health Committee and the Standing Committee on which he has acted for some years. He is a Director of the Bangalore Bank and also of the "Union Bank of Bangalore" Civil and Military Station. The Rai Bahadur also deals in grain which he imports largely and disposes of throughout the Mysore State, and to the Commissariat Department. He gives employment to as many as 600 hands. Rai Bahadur Annaswamy has earned an enviable reputation for charity and generosity. He has ever been foremost in helping the needy and has effected his contributions to the public good in the best and most effective manner. His meritorious charitable work attracted the notice of the authorities, and his title of Rai Bahadur was bestowed upon him as a recognition of the service he has given to the cause of the poor. In the Civil and Military Stations of Bangalore he erected a building for a Dispensary of which he made a free gift to the Municipality. At the same time he donated two houses for Hospital Assistants. The value of this munificent gift was Rs. 15,000. He is now engaged in another most useful work which will be of the greatest use to the community, the building of premises for primary education for all castes and creeds, which will be endowed by him. Lately he acquired a piece of land in the Station at a cost of Rs. 2,500 which he has made over to Government in the most public spirited manner for the purpose of connecting the new town extension with the Civil and Military Station. In pursuance of the same objects for the public good the Rai Bahadur has also erected some fifty houses which he rents out at nominal rentals to assist the poor in the congested portions of the Civil and Military Station. He has thoroughly earned in this and other ways the respect and esteem of his fellow townsmen and the honours that have been granted him by Government. Rai Bahadur Annaswamy attended as a guest at his own expense the Coronation Durbar at Delhi, and for this he received the Delhi Durbar Coronation Medal.

The AMERICAN BAPTIST MISSIONARY UNION. This Society dates from the year 1812 when the newly-formed Board of



JOHN J. THURMAN

missionaries in India, China, and other parts of the world.

missionaries in India, China, and other parts of the world.

nation; since owing to their change of views, they could no longer look to the Congregationalists who had sent them out. He received prompt and hearty aid from the Baptists who took immediate steps to send temporary aid to the Judsons and their work. In May of 1814 the General Missionary Convention for Foreign Missions of the Baptist denomination was organised by a delegated body which met in Philadelphia, Pa., U. S. A., for the purpose. The original organisation lasted till the year 1845, when the Baptists of the Southern American States withdrew and formed a separate Association. In the following year the Convention was reorganised into the American Baptist Missionary Union, an incorporated body, having its headquarters at Boston, Mass., U. S. A. From such small beginnings has grown the present work of this Association which has become one of the leading missionary organisations of the world. The following missions succeeded the original one, mentioned above as the abortive attempt in Bengal—Burma, 1814; Siam, 1833; Assam, 1836; South India (among the Telugus), 1836; China, 1842; Japan, 1872; Congo

Land, Africa, 1884; Philippine Islands, 1900. The total number of Missionaries now working in India and Burma is 347, of whom 192 are in Burma, 100 in South India, and 55 in Assam. Of Medical Missionaries there are 23, of whom 13 are in Burma, 6 in South India, and 4 in Assam. There are 1,909 native workers in Burma, 1,496 in South India, and 283 in Assam. The total number of native church members is 58,642 in Burma; 54,327 in South India; and 9,006 in Assam. The Society made 7,069 converts in Burma, 2,431 in South India, and 925 in Assam during the year 1906; and the pupils in their schools numbered 24,307 in Burma; 15,154 in South India; and 4,048 in Assam. The American Baptist Mission Press, the publishing house of the American Baptist Missionary Union in Rangoon, has grown into an important institution. It was commenced in the year 1816, the first missionary printer being the Reverend George H. Hough, who arrived in Rangoon in that year bringing with him a wooden hand press and a fount of Burmese type, the gift of the Serampore Missionaries. The Press is now housed in one of the most admirably designed buildings



AMERICAN BAPTIST MISSION PRESS, RANGOON.

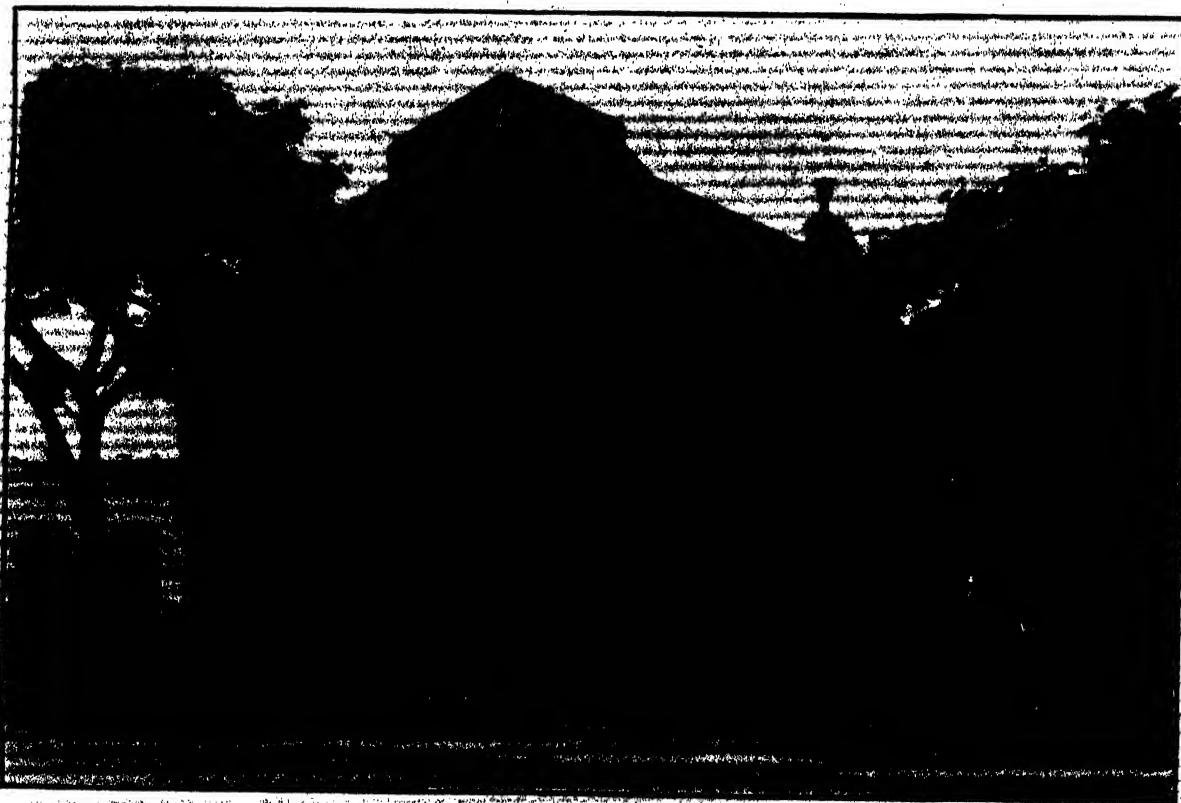
for this purpose in the East, and gives employment to about 250 workmen gathered from all over India. At this Press the Bible is printed in entire text, in four languages, with portions of Scripture in three other languages. The publishing house also issues miscellaneous religious literature and periodicals in seven languages, also educational books from elementary to advanced works. These form the result of nearly a century of work. The sales room of the Press also handles a supply of educational appliances which are shipped to places all the way from Singapore to Darjeeling. These supplies are called for by the fine schools of the Missionary Union in Burma, and are also available to all other school managers.

Messrs. W. ANSON & Co., General Merchants, Cabinet Makers, Upholsterers, Estate, Land, House and Commission Agency and Auction and Furnishing Departments, No. 104, Fraser Street; and 61, Sparks Street, Rangoon,

Burma. This business was originally established about the year 1878 by W. Anson & Co., who carried it on in a small way for some five years till about the year 1883. Mr. John Moment purchased the stock and good-will of the concern. Mr. Moment has carried it on ever since to the present day, very largely increasing its scope and influence. W. Anson & Co. are now representatives in Burma for Messrs. Simpson & Co., of Madras, and Messrs. Stewart & Co., of Calcutta. They have in addition a large coach building establishment of their own at Rangoon, where carriages and vehicles of all classes are built of the best materials and workmanship. These shops give employment to some 50 operators. They have also a blacksmith's shop where general repairs are executed. In its trading department the firm are importers and exporters of all kinds of goods on a large scale. In addition they carry on a large land and estate business and an auction department, both of which

are exceedingly prosperous. The premises occupied by the firm at the above address are very extensive and spacious. They have large frontage on Fraser and Sparks Streets and are situated not far from the Secretariat Buildings. Here they hold weekly sales of every description of live-stock and carriages, coaches and all kinds of goods and merchandise. They are open to receive consignments of goods for disposal for all parts of the world. Mr. John Moment is assisted in the management of the business by Mr. T. C. Isacke.

Mr. JOHN MOMENT, Proprietor, W. Anson & Co., Rangoon, was born in India, and is the son of the late Thomas Moment, formerly of the British Army and a native of the county of Kent, England. After leaving school, Mr. Moment was connected with a circus, where he learned the management and breaking in of horses, which has proved of great use to him in his present business. In



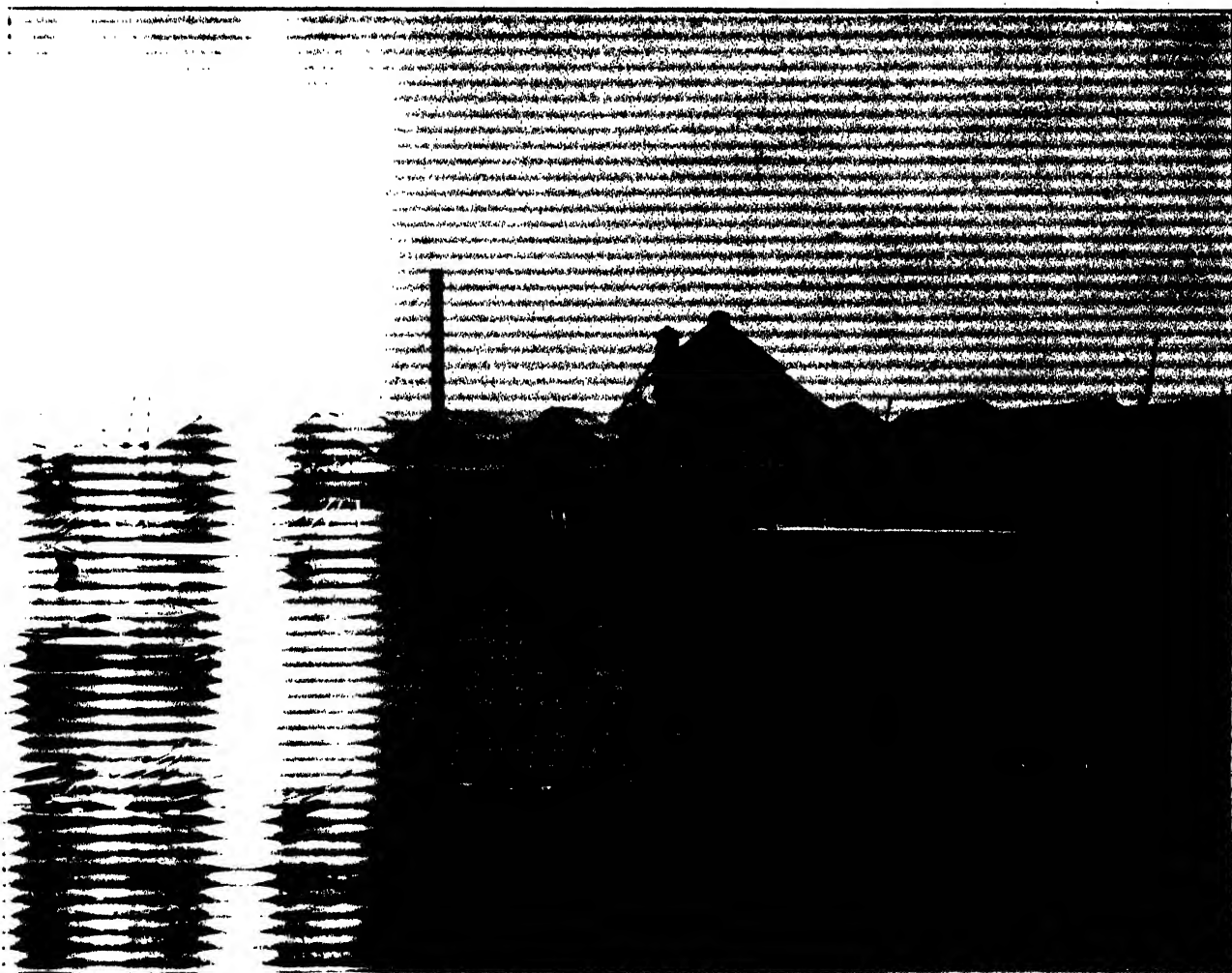
Messrs. W. ANSON AND CO., RANGOON.

1876, he came to Rangoon and engaged in the business of training horses, etc., and finally purchasing the firm of W. Anson & Co., embarked in his present business, which he has so greatly improved and extended that he has made it one of the leading firms in the city. He does a large business for the local Government in auctioneering.

The **ARRACAN Company, Limited**, Rangoon. Office, 74, Phayre Street. Rice Millers and General Merchants and Agents. Head Office, 57½, Old Broad Street, London, E. C. Besides Rangoon, Branch Offices have been established at Bassein, Akyah, Moulmein in Burma, Calcutta in India, Bangkok in Siam, and Saigon in French

Indo-China. The Company is now of some 23 years' standing, having been formed in April 1885, for the purpose of carrying on business as above. They are Rice Millers on a large scale, and own in all nine large rice mills, three of which are situated at Rangoon, one at Moulmein, two at Bassein, two at Akyah and one at Bangkok. These mills are fine examples of modern methods of rice milling, being equipped with the most up-to-date machinery throughout. The mill buildings are well and solidly constructed, and all the mills are worked under European supervision and management. The Company carry on a large business in the export of rice to all parts of Europe and other centres of commerce in the world. Their export and import opera-

tions, however, are not confined to this staple, but include all kinds of general merchandise, in which a large and growing trade is springing up between Burma and the further East and European countries. They also deal in teak and other descriptions of timber which they export from Burma to India. In addition to their mercantile operations the Arracan Company carry on Agency business, in which they hold valuable Agencies for several important Companies. They are entrusted with the local affairs of the Sun Insurance Office, the London & Lancashire Fire Insurance Company, the Guardian Fire and Life Assurance Company, Limited, the London Assurance Corporation (Marine) and the Thames and Mersey Marine Assurance Company, Ltd. The Com-

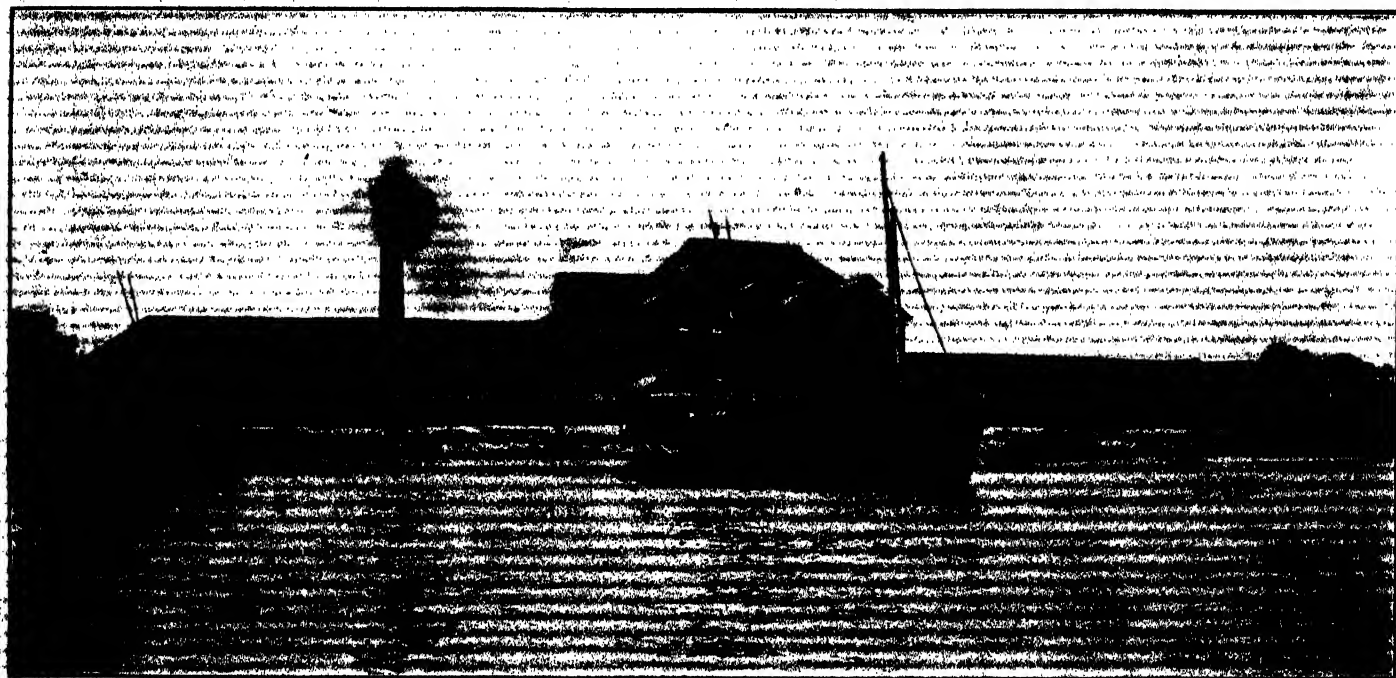


THE KANANINGTOE MILL, RANGOON.

pany are also agents for the Currie Line of Steamers to Australia, and the splendid Bibby Line of fast and twin-screw Mail passenger steamers sailing regularly between Rangoon, Colombo, Suez, Port Said, Marseilles, London, and Liverpool. These favourite vessels are the Herefordshire 7,182 tons register, Warwickshire 7,956, Cheshire 5,775, Shropshire 5,785, Staffordshire 6,005, Derbyshire 6,636, Worcestershire 7,160, ranging from 4,500 to 5,500 horse-power, and with a carrying capacity of 9,000 to 11,000 tons. All the steamers are fitted with bilge keels, giving extra stability, and are specially built for the first class Eastern passenger trade. They are splendidly equipped for passengers, of whom they carry only first class. In all the Bibby Steamers the state-rooms for passengers are located entirely on the main and promenade decks. The state-rooms possess one very great advantage in that each has a port or window giving free access to the outside open air. Thus all passengers have equal advantages in securing light and fresh air, a very great advance on the old system wherein the inner cabins were cut off from the deadlights in the broadside of the ship, and which

still obtains in far too many modern steamers. This excellent arrangement is secured by the installation of the Bibby patent tandem cabin system, which is installed on all ships of the Bibby line. This advantage is secured by a simple arrangement whereby every pair of cabins, one outside and one inside, are built in the same rectangle divided into two parts, the bulkheads partitioning the one from the other being so placed as to allow a passage way from the inner cabin to one of the ports. The outer cabin is of the ordinary type, and practically occupies one corner of the rectangle, leaving room for the inner cabin with its access to the port. Access is obtained to each pair of state-rooms by a passage from the main alley way which traverses the ship inside of the state-rooms. No state-rooms are placed inside of the alley way. It is thus practicable when shipping by the Bibby Line to secure a comfortable and airy state-room even when engaging a passage at the last moment. Each cabin is thus furnished with a port and wind scoop, and in many cases a skylight is provided which can always remain open. East of Suez the Bibby Company provide electric fans free of charge, and the passage money in-

cludes ordinary medical attendance, Steward's fees, table and bedding linen, baths, punkahs, ice, etc. Each steamer carries a duly qualified surgeon and experienced stewardesses. A further advantage offered by the Bibby Line is that passengers desirous of staying at any port *en route* may do so, and resume their journey by the next succeeding steamer without extra charge, provided they accept the risk of their being accommodation available in the steamer they rejoin. The same holds good of return tickets with the same proviso. This concession is made in the case of passengers making the whole journey, but passengers to and from the Mediterranean Ports may obtain the same privilege by the special consent of the Company or its Agents. All saloons and state-rooms on these fine steamers are above the main deck and situated amidships where the motion of the vessel is least. A smoking room and nursery are provided in addition to the usual general saloon. The promenade decks are unusually spacious, and are permanently covered with wooden shelter decks, and are thus protected from sun and spray in all weathers. A large clear main-deck forward affords ample space for exercise, and the usual ship's games and amusements. Considering the



THE ARRACAN CO.'S MILLS AT DAUBONG.

advantages offered in comfort, speed and security, the passage money is low, being Rs. 600 from Rangoon or Colombo to London with proportionate charges for intermediate ports. Concessions of 10 and 15 per cent. are made in cases of family parties paying three and four full fares respectively. Railway employes, vouched for by Railway Companies, receive a reduction of 10 per cent. on their passage money, and special terms are granted to *bonâ fide* Missionaries attached to societies of any denomination, Hospital Nurses, Sisters of Mercy, Nuns, Theatrical Companies, and also Egyptian officials. The service is a fortnightly one, the steamers sailing on alternate Thursdays from Liverpool, and fortnightly from Rangoon, as per the published dates of sailing advertised in the daily papers. The Liners carry the French and Egyptian Mail between Marseilles and Egypt, and the Suez and Colombo.

turned on to stifle any conflagration without removing the hatches. All particulars and every assistance to intending passengers and goods shippers can be procured from their Agents, the Arracan Company, Limited, at any of their above mentioned offices.

Mr. J. R. HALLIDAY, General Manager in the East for the Arracan Company, Ltd., 74, Phayre Street, Rangoon. Mr. Halliday



Mr. J. R. HALLIDAY.

was born in Dumfriesshire, Scotland, on 30th May 1872, and educated privately. He joined the Arracan Company in London as an assistant, and after four years' training and office experience, he was appointed to Burma, where he first served as assistant to the Company. In 1897 he was promoted to the post of Sub-Manager, and after ten years' work in this capacity was appointed General Manager for the East in 1907. Mr. Halliday was Chairman of the Chamber of Commerce of Burma in 1907-8 and is a Commissioner for the Port of Rangoon.

The ARRACAN COMPANY, LTD., Mill Proprietors and Merchants, (Branch) Moulmein. Established in the year 1888 at first for the purpose of dealing in rice only. In 1895 the Company purchased the rice mill, where they now employ

about 80 hands regularly, and during the season these numbers rise to some 500 hands. They employ two Europeans besides the Manager. In 1903 the Company enlarged the scope of their operations by shipping timber to their Calcutta house, Mr. Elliot Hill, the Manager of the Arracan Company, Ltd., was born in Ireland in the year 1862, and received his education in Ireland, England and Scotland. He came out to Burma in 1881 and at first joined the old firm of Halliday Brothers. When Halliday Brothers was wound up, the Arracan Company, Ltd., was formed to take over the mills and business of that firm. Halliday Brothers' employees were taken over by the Company, and Mr. Hill being at the time one of the Assistants, he was appointed in 1888 to take charge of the firm's branch at Moulmein, and has managed the business at that centre ever since. For many years he served as a member of the Moulmein Municipality, and has held the appointment of Honorary Magistrate since the year 1899. He is also a member of the Leper Asylum Committee having been connected with this Institution since its inception. In 1902 the Government of India bestowed



Mr. ELLIOT HILL.

upon him the Kaiser-i-Hind Medal. He takes a strong interest in the

affairs of the Craft and holds the 31st degree, which he took in England. He is Past District Grand Warden of the Craft, and Mark Past Principal, Royal Arch Provincial Subprior, Temple Malta, Deputy Superintendent General, Red Cross. He is one of the highest Masons in Burma.

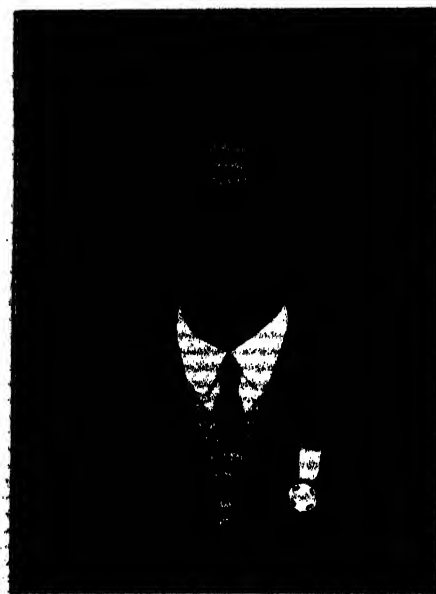
Messrs. J. L. BACKOFEN & Co., General Merchants. Head Office, 734, Merchant Street, Rangoon, Burma. The firm deals principally in imports of piece-goods, hosiery, and hardware, besides general merchandise. They also carry on an export business but on a smaller scale. Messrs. J. L. Backofen & Co. were established in the year 1892 by Messrs. C. Sixt and L. Backofen. Mr. Backofen has since died and the present partners are Mr. C. Sixt and Mr. V. Zollkofer. Mr. A. Blohm, the present manager, came out as an assistant for the firm in the year 1895.

Messrs. BALTHAZAR & SON, General Merchants and Auctioneers, Rangoon. This firm was established in 1857 by the late Mr. B. C. H. Balthazar, who was an Armenian of Ispahan in Persia. Mr. Balthazar migrated from Persia and landed at Bombay in company with his son in the year 1853 (the memorable year of the great earthquake, from which large districts in Persia suffered so severely). At Bombay he started a small business in the general line, with which he did well. About eighteen months later, hearing that there were better business prospects in Calcutta, he proceeded to that city, leaving his son to manage the business in Bombay. The business Mr. Balthazar started at Calcutta was in the general line, and similar to his Bombay connection. His first connection with Rangoon was established by personal visits to that port, to which he resorted periodically with such goods as found ready buyers. He did business in this style until the increasing prosperity of his transactions rendered them too much for him to carry on alone. He therefore sent to Bombay for his son, whom on his arrival in Calcutta, he despatched at once to Rangoon, he himself remaining in Calcutta to manage the local business, with less frequent visits to Rangoon. The Burma

business rapidly increased with the growing prosperity of the town, and Mr. Balthazar found it necessary to bring his second son, Mr. Samuel Balthazar, now senior partner in the firm, from Persia, as more hands were needed to carry on the increased business of the firm. Mr. Samuel Balthazar arrived in Calcutta in the year 1863, and after two years' study at St. Xavier's College, joined his father and brother in business at Rangoon in 1866. The firm's affairs, established on such sure foundations, extended and grew, and seeing the prosperous condition of the business and finding himself getting on in years, Mr. Balthazar, senior, knowing that he was leaving, as his successors, sons worthy of their father, decided to retire, and he returned to Persia in the year 1873, where he died two years later. Mr. Car Balthazar continued the business with his younger brother until the year, 1901, when he also died, leaving his interests to his two sons, Mr. Gregory C. Balthazar and Mr. Balthazar C. Balthazar. The former of these withdrew from the firm in 1907. Messrs. Balthazar and Son are thus one of the oldest established firms at Rangoon. Besides carrying on business as Merchants and Auctioneers, they do an extensive Estate and Banking business, receiving money for investment and acting as general and real estate agents, besides doing a large Import and Export business of every kind. The firm's affairs are now in the hands of Mr. Samuel Balthazar, as senior partner, and Mr. B. C. Balthazar, the second son of Mr. Car Balthazar, and nephew of Mr. S. Balthazar, as junior. Mr. Samuel Balthazar's two sons are at present studying in England. The late Mr. Balthazar, senior, had also two daughters, whose two sons and a grandson are also in the business.

Mr. ROGER BAGCHI, of Bagchi & Co., Engineers and Contractors, Rangoon, was born in India, where he received his education as an engineer and gained practical experience in that profession, and also as a builder. In 1885 he decided to settle in Burma, and after the annexation of Upper Burma in 1887, he was engaged on

the construction of a portion of the Toungoo-Mandalay Railway, which was completed in the space of 13 months. He subsequently undertook contract work for the Mandalay Municipality when Count Calderari was the Municipal Engineer, and was entrusted with the erection of many municipal buildings, including the General Hospital, also roads, culverts and bridges, etc. His work in this connection, in fact, included practically the entire construction of the town of Mandalay. While engaged on these contracts, Mr. Bagchi undertook the construction of a portion of the Mu Valley Railway. This work was greatly hampered by the cholera epidemic,



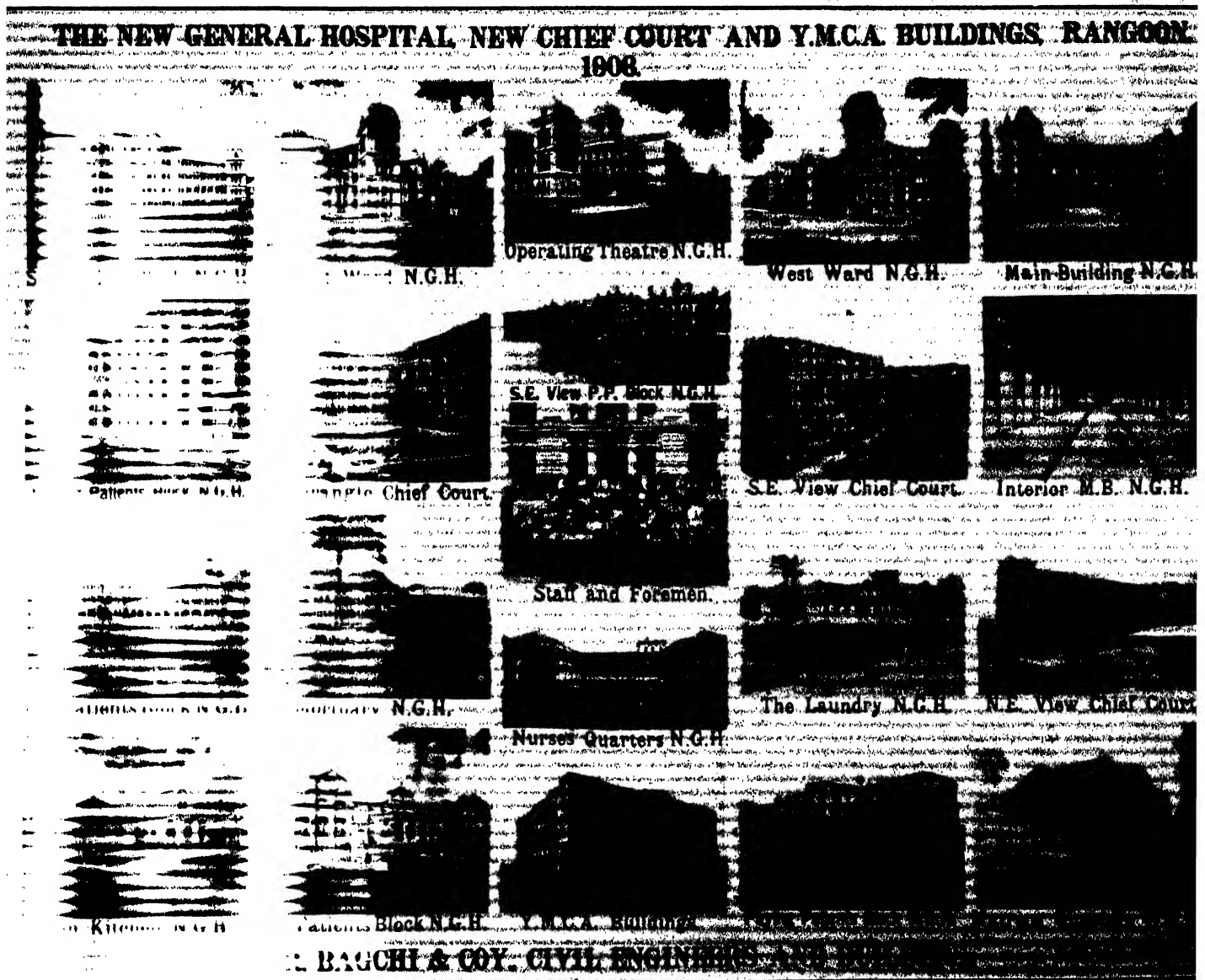
Mr. R. BAGCHI.

by which he lost about 800 men. He carried out his contract, however, in the face of difficulties, to the entire satisfaction of the Engineer, Mr. F. R. Bagley, who had every confidence in him. The strain of this work affected Mr. Bagchi's health and he had to abandon active work for the period of one year, to recuperate. Returning to Mandalay at the end of this time, he secured the contract for the construction of the embankment around Mandalay. The Viceroy's Ghat Road was his next contract. This was constructed at Bhamo. Although the time allowed for this work was 24 months, Mr. Bagchi pushed on the construction with

such rapidity that it was completed in nine months. He had special facilities, as he was using his own steamers. Mr. Bagchi proceeded to Rangoon in the year 1904 where he built the Y. M. C. A. buildings. While engaged on this work he tendered for the contract for the construction of the Chief Court and the Rangoon General Hospital. He had good recommendations from Mr. T. Rollo, Superintending Engineer, P. W. D., and Count Calderari. Mr. Bagchi secured these important contracts which amounted to the value of about £400,000. The then Chief Engineer of the P. W. D., Mr. Montea-

Jacob, desired the foundation stone to be laid in two months' time, and Mr. Bagchi put this work through by 5th May 1905, on which date the ceremony of laying the corner stone was performed by the Lieutenant-Governor, Sir Hugh Barnes. For the purpose of carrying out these contracts Mr. Bagchi employed as many as 4,000 men. The work is still proceeding. He employs a European supervising staff of six skilled men, besides Chinese, Burmese, and Madrassi overseers. For the purpose of burning his own bricks for these works Mr. Bagchi has his own brickfields, and Government brickfields, where he gives

employment to about 1,800 men, and makes about 10 million bricks annually. The new General Hospital comprises twenty-four buildings and the Chief Court five. Mr. Bagchi carries through all his big contracts alone, having no partner, and he personally supervises everything. He has received the congratulations of the Chief Engineer, Mr. O. C. Lees, on the splendid brick-work he is putting into the buildings. It has also been highly commended in the *Indian and Eastern Engineer*. Mr. Bagchi has been very prominent in all the public works of modern Burma, and erected every building of



importance in Mandalay, also roads, culverts, etc. He takes great interest in Freemasonry. He has one son who has taken high degrees at the University of Cambridge.

The BANGALORE BREWERY COMPANY, Brewers and Maltsters, Sydney Road and Langford Road, Bangalore. The business was originally established in the sixties by Mr. Honeywell. In 1901 the present Company was formed, consisting of Messrs. Abraham & Co., Mr. Thomas Leishman, Messrs. Gungarada Chetty & Co., and Messrs. Maigandadeva and Chelvary Mudaliar, to carry on the concern. The new Company immediately improved the arrangements, commencing the brewing of beer on scientific principles, for which purpose the latest inventions in plant and machinery were imported and ice plant was laid down for refrigerating purposes. Later on the bottling of beer under the chilling and cold storage process, recognised as the latest and most approval method, was adopted. There are extensive and up-to-date Malt houses attached to the Brewery. Barley for malting is imported from the Central Provinces, but a large percentage of English imported malt is also used in the manufacture of bottled beers. The brewery does a large and increasing business, supplying the Military messes, the Soldier's Club and Institutes, and local demand.

The BASSEIN PRESS, Bassein, Burma. L. D'Attaiides, Proprietor and Superintendent; Maung Po Chit, Manager. Established in the early sixties of last century. The weekly newspaper, *The Bassein News*, is published from this press. Mr. L. D'Attaiides, son of the late Mr. C. D'Attaiides, one of the oldest residents of Bassein, and for many years a Municipal Commissioner of that town, Superintendent of the Bassein Press, Editor of the *Bassein News*, is a Pleader by profession, and was born in the year 1868. He was educated in Burma, at first privately, and later he attended the Government High School at Akyab under the Principalship of Mr. J. Simeon. While still under Mr. Simeon's tuition he was attached to the Akyab Orphan Press. He was employed originally as a pie-

picker. In service with this press he rose from his original capacity to that of Manager of the Press and Editor of the *Akyab Weekly Advertiser and Provincial News*. He also went through a course of training in electro-plating, book-binding, carpentry, and as a tin-smith. In the year 1885 he adopted the scholastic profession and served as a school-master for two years. In this period he was nominated for the subordinate Civil Service, but did not take up his appointment. He preferred to join the office of Messrs. Moylan and Eddis, bars-at-law, Rangoon, with whom he served for eight years. Here he obtained his training in law.



Mr. L. D'ATTAIIDES.

He was at this time also employed as Private Secretary to Mr. Moylan who was the correspondent of the *London Times* in Burma. Mr. D'Attaiides passed his legal examinations in the year 1894, and for the next two years he practised in Rangoon and for the same period as an advocate at Maubin. In the year 1898 he transferred his practice to Bassein where he has been established as an advocate ever since and has built up a large and lucrative practice. He is now one of the senior members of the Bar at Bassein, and a member of the Bar Association. He has also served for two terms as Municipal Commissioner in the town of his adoption. Before he joined

the Bar Mr. D'Attaiides was the Managing Editor of the *Bassein Weekly News and Advertiser* for some years. In the year 1906 he again turned his attention to literature taking over the Sgan-Karen Press, and started the *Bassein News*. At that time the press was in very low water, but under Mr. D'Attaiides' management it re-entered a period of prosperity. It is now a first class institution and the *Bassein News* has attained a large circulation, and is very popular. Besides printing, book-binding, etc., the Bassein Press undertake miscellaneous business, agencies, etc. A new three-storeyed building for the press is now in course of erection wherein the machinery is to be worked by electricity. Mr. D'Attaiides has started an experimental farm and owns 500 acres of cultivable land outside Bassein for the supply of Bassein with eggs, poultry, milk and farm produce. This venture has received the recognition of Government. He is a volunteer of long standing starting as a member of the Akyab Cadet Company. In the third Burmese War he was the only volunteer to offer his services to accompany the detachment sent to quell the disturbances at Arakan. He was awarded the Burmese war medal, which was presented to him by General Ian Hamilton at a general parade at Rangoon. Mr. D'Attaiides is now one of the largest land-owners in Bassein.

Mr. JOHN DOUGLAS BAYLY, Proprietor, London and Burma Agency, Commission Agents and Importers, Moulmein. Mr. Bayly was born in India and educated at the Doveton College, Madras. He is a grandson of the late Major Thos. Bayly, of the Connaught Rangers, who was Commissioner, Judge, and Commandant in Ceylon at the time of his death, and great grandson of Dr. Tait, who was P. M. O. in the Madras Presidency. Mr. Bayly came to Burma in the year 1863, and in that year entered Government service in the Post Office Department. His services were subsequently transferred to the Recorder's Court, where he held the position of Registrar before he was 20 years of age. In addition to this office in the latter Court of the Judge of Moulmein, he was subsequently appointed Official Assignee and Assistant Judge of the

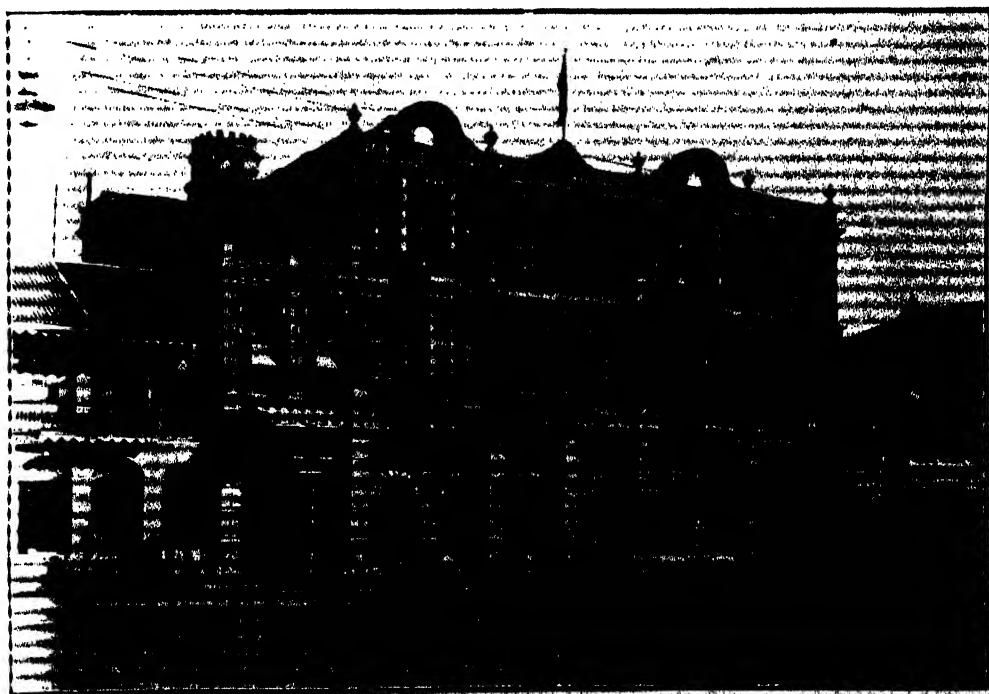
Small Cause Court. He filled all three of these offices till the year 1900, when he retired. He then visited England, where he resided for some time, returning to Burma in 1903 to embark in business. In addition to carrying on his above business Mr. Bayly who was Managing Director of the "Tenasserim Motor Car Company, Ltd.," is a Director of the Burma Motor Transport Co., Ltd., with which the first named company has been amalgamated.

Messrs. W. A. BEARDSSELL & Company, Madras, established 1902. Importers of piece-goods and yarns. They are Managing Agents for the Bobbili Mining Co., Ltd., exporting from Vizagapatam manganese ore.

The London Agents for sale of ore are Messrs. K. Ettlinger & Co., of Great Tower Street E. C.

Air System. This was an ill-considered scheme and never worked properly. At this time the Imperial Ice Factory at Calcutta failed, and two of their Binary System machines were taken over to Rangoon and brought into operation there on the Ether system, under the name of the Distillery Ice and Aerated Water Company. By this time the Perseverance Ice Company and the Rangoon Ice Company had closed down. The Burma Oil Company also ceased the supply of ice, and the field was left to the Burma Ice and the Distillery Ice Companies. Owing to the limited supply available, the price of ice remained at one anna per pound at ordinary times rising to two annas and upwards during the hot season. The opening thus offered attracted Mr. J. E. Du Bern who had previously been in Rangoon in the years 1880 and 1887, and had been connected with the Crystal Ice and Aerated Water Company of Calcutta. In 1893 Mr. Du Bern decided to open an ice and aerated water factory at Rangoon, choosing a site in Soolay Pagoda Road formerly occupied by the Perseverance Ice Factory. In this enterprise he was joined by Mr. A. G. Du Bern, and together they inaugurated the

now well-known firm of Du Bern & Co., Proprietors of the Diamond Ice Factory. Under the guidance of Mr. J. E. Du Bern, who had made a special study of the manufacture of aerated waters, this branch of the business immediately took a leading position in the trade. For the facilitation of the business a 3-inch tube well was bored in 1894 and a copious supply of pure water reached at about 200 feet below ground level. This water-supply is well protected from contamination by several layers of clay, and the well is the first tube well struck within the limits of the town proper. The proprietors also paid special attention to the washing of the bottles used, and their system combined with the pure water used, assured the position of the now well-known Diamond Mineral Waters. The original premises were not sufficiently large to keep pace with the growth of the business, and in 1904 it was found necessary to purchase land alongside of them. New buildings were erected, and these fine structures were designed and built by Mr. J. E. Du Bern. The output was greatly extended by this advance, and nearly 2,000 dozen of mineral waters have been



Messrs. D. BERN & CO.'S BUILDING, RANGOON.

turned out in a day of 10 hours. Mr. A. G. Du Bern devoted himself to the management of the Ice Factory, having been specially trained in Refrigeration. Notwithstanding competition, the business grew till the original plant and premises proved too small. In 1905 a new factory with the most up-to-date refrigerating plant and cold storage store, was built to the design and under the personal supervision of Mr. A. G. Du Bern, on a piece of land 150 ft. by 40 ft. behind the Seolay Pagoda Road specially purchased for the purpose. The plant is on the Anhydrous Ammonia System, and the building is fireproof, of brick and reinforced concrete. It is three-storied, the room for two 6-inch tube wells, pumps, producers, and other small gear, being on the ground floor. The engine room alongside contains a gas engine working the compressors which keep the cold store rooms at their proper temperature. The main engine is a Diesel Oil Engine of 80 horse-power burning Burma crude oil and working the Linde compressors for ice making. Room has been provided for another engine of 120 horse-power which will bring the capacity of the plant up to 50 tons per day. Ice and fish stores with a capacity of 300 tons are situated immediately south of the above. There are store rooms over the pump rooms, and over the ice stores are the tanks in which ice blocks weighing 400 lbs. are made. The top floor is entirely used for cold storage; special care has been given to insulation necessary in the hot damp climate of Rangoon, teak tongued and grooved with P. B. paper and silicate cotton being used for this purpose. Some 25,000 cubic feet of storage space is available, and there is left further capacity for extension by 50 per cent. These factories are well placed, being under a quarter of a mile from the river and main railway station. Despite the fact that they are both extremely busy men, Mr. J. E. and Mr. A. G. Du Bern have taken considerable interest in public affairs. Mr. J. E. Du Bern is a Municipal Commissioner and Vice-President of the Municipal Committee, and Mr. A. G. Du Bern is Honorary Secretary of the Burma Athletic Association, one of the best organizations of its kind in the East.

The Late Babu JADAB CHANDRA BISWAS, Proprietor, the Empress Nursery, Narcoldanga Main Road, Calcutta. Born in the year 1830. He commenced business life in the office of Messrs. Rentiers & Co., of Calcutta, where he served for some years as book-



The late Babu JADAB CHANDRA BISWAS.

keeper. In the meanwhile he had established business for himself as an Import and Export merchant. This business increasing in importance he threw up his mercantile appointment to devote himself to its care. He was a good business man, thoroughly versed in English and in European methods, and under his management the business flourished exceedingly and produced a large fortune for him. Having a turn for botany and kindred subjects Jadab Babu turned his attention to floriculture and horticulture, and in the year 1885 invested a large sum of money in establishing the Empress Nursery at Narcoldanga. He spared no pains or outlay in the collecting of new and rare plants from all over the world, and the reputation of the Empress Nursery rapidly grew into importance. He carried off numerous gold and silver medals with his exhibits of rare and beautiful plants at various Exhibitions held at Calcutta, and gained the patronage of the most

exalted officials in the land. Lord Lansdowne when Governor-General of India honoured the Empress Nursery by two visits and gave Jadab Babu a letter of appointment as his "Nurseryman and Florist." He also received a visit from Lord Roberts, at that time Commander-in-Chief of India, which also resulted in a letter of appointment to the celebrated general. Jadab Babu was also appointed Nurseryman and Florist to H. E. Lord Elgin, Viceroy of India. With these credentials the Empress Nursery gained the support of all interested in horticulture. Maharaja Bahadur Sir Jatindra Mohan Tagore was Jadab Babu's greatest patron and the present Maharaja Sir Prodyat Coomar Tagore still patronises the Nursery. Jadab Babu took great interest in public life. He was for many years an Honorary Magistrate of the Sealdah Bench and also served as Commissioner and Vice-Chairman on the Manicktollah Municipality. He was instrumental in introducing the filtered water-supply to this



Babu APURVA CHANDRA BISWAS.

Municipality which greatly benefited the residents. He established the "Thakur Barce" in the Narcoldanga Main Road, and made arrangements for the daily feeding of the poor. He died greatly

respected on August 5, 1908, at the age of 78 years, leaving one surviving son, Babu Apurva Chandra Biswas, whom he appointed by will his sole executor. He also left five grandsons of whom Babu



Babu APURVA CHANDRA BISWAS.

Babu Apurva Chandra Biswas, the only surviving son of Babu Jagad Chandra Biswas, is now aged about 29 years, and is the eldest son of the late Babu Jagad Chandra Biswas. He is a young man of much promise, and is employed in the management of the Empress Nursery in which he is assisted by his cousin Babu Horendra Nath Biswas, second son of Babu Apurva Chandra Biswas. Both these young men show considerable aptitude in horticultural science, and are doing good work in improving the condition of the Nursery. The following medals have been carried off by the Empress Nursery Exhibits at different Exhibitions from time to time.

Magistrate at Sealdah, and a Municipal Commissioner of the Manicktollah Municipality. He has, however, lately resigned these positions as the cares of business left him less and less time to devote to them. He is sole proprietor of the firm of Horen Brothers of 80 A., and 81, Bentinck Street, Calcutta, where he carries on a flourishing business in bicycles and gramophones.

Babu Nogendra Nath Biswas, now aged about 29 years, is the eldest son of Babu Apurva Chandra Biswas. He is at present employed in attending to the collection of



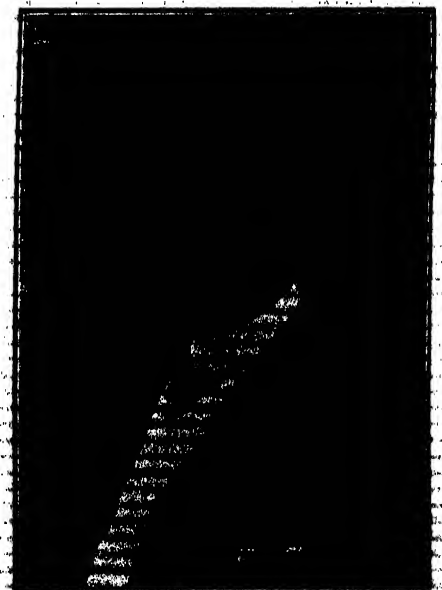
Babu NOGENDRA NATH BISWAS.

the estate left by his grandfather and is considered a young man of much promise.

Babu Jatindra Nath Biswas, aged about 27 years, is the eldest son of the late Babu Jogendra Nath Biswas, second son of the late Babu Jagad Chandra Biswas. He is employed in attending to the affairs of the Empress Nursery in which he is assisted by his cousin Babu Horendra Nath Biswas, second son of Babu Apurva Chandra Biswas. Both these young men show considerable aptitude in horticultural science, and are doing good work in improving the condition of the Nursery. The following medals have been carried off by the Empress Nursery Exhibits at different Exhibitions from time to time.

The Grant Silver Medal (1886), the Countess of Dufferin Fund Silver Medal (1886), the Grant Silver Medal (1888), the Grant Silver Medal (1889), the Grant Silver Medal (1890), the Grant Silver Medal (1891), the Viceroy's Silver Medal (1892), the Maharaja of Cooh Behar's Gold Medal (1893). The Silver Medal for the best collection of palms (1892), the Agri-Horticultural Society of India's Special prize for a collection of plants exhibited at the Society's annual show in 1887.

Messrs. F. O. BLOECH & Co., Hide and Export Merchants, Rangoon. This business was established by the late Mr. Fred. O. Bloech in the year 1887, and was also carried on at Calcutta for a time. Mr. F. O. Bloech continued to carry on the business till his death which occurred in 1906. His son, Mr. Edwin O. Bloech, who had assisted his father for some years in the management of the business, took over charge of the affairs on his father's death. The firm have offices in London and Agents in every place of importance in Burma, altogether about twenty



Late Mr. F. O. Bloech. in number. Messrs. Bloech & Co. have large godowns at Rangoon for curing and packing hides for shipment to Europe and U. S. A.

BRONSON'S WEST END HOTEL, Bangalore. This fine establishment for residents and visitors at the cool and salubrious station of Bangalore consists of six fine buildings with spacious verandahs overlooking beautiful



Mr. ISAAC BRONSON.

gardens and three cottages. There is a large dining room, a spacious and lofty billiard room fitted with two of John W. Robert's newest pattern full sized billiard tables, and a drawing room, all furnished in up-to-date style. There is accommodation for some fifty or more guests; the bed-rooms are large and airy with dressing-rooms and bath-rooms attached. All parts of the hotel are lighted with electricity. In the compound are established a bakery, a dairy, and a carriage establishment and livery stable, and carriages and horses are supplied to guests at reasonable rates. Good stabling is also provided for visitors' private horses, and a garage for motor cars. The situation of the hotel is most favourable. It is on the high ground and adjacent both to the Race

Course and the Golf Links, between which it lies, standing in its own nineteen acres of land, which are well laid out with shady trees, gardens, tennis courts, golf links, and other amusements for the comfort of visitors. The surroundings are picturesque. The Bangalore City Railway Station is about one mile from the hotel, and there is a service of trains from both Bombay and Madras sides. The Cantonment Railway Station is distant one mile and a quarter. In the vicinity of the hotel are also the Cubbon Park and the Presidency Museum. The Station of Bangalore is famous for good roads, pretty drives, and its excellent climate all the year round. It is elevated about 3,000 feet above sea-level. The West End Hotel is a monument to the energy and resource of Mr. and Mrs. Bronson, the proprietors. It was started by Mrs. Bronson as far back as the year 1887 in a small bungalow with accommodation of about eight rooms only. Mr. Bronson joined his wife in 1888 and as the enterprise proved successful, and the demand for accommodation justified further extension, other bungalows were added. In this manner the hotel was carried on until the year 1905 when the first wing of the fine and spacious present buildings was opened for business; subsequently the other buildings have been

added and great improvements for the visitors regularly made.

The whole site is now freehold property owned by Mr. and Mrs. Bronson. Besides catering for visitors to Bangalore the proprietors are open to make arrangements for



Mrs. BRONSON.

any of their guests who wish to visit Mysore, the capital of the State of that name, and Seringapatam, famous in history for hard fought battles.



DINING AND BILLIARD ROOMS, BRONSON'S WEST END HOTEL, BANGALORE.

The BOMBAY-BURMA TRADING CORPORATION, Ltd., Rangoon. Forest Lessees and Timber Merchants. This large Corporation was originally founded when Upper Burma was still an independent kingdom, with its capital at Mandalay. It owed its foundation to the late Mr. William Wallace who, in the year 1862, obtained from the King of Burma large concessions of teak forests. For the working of these in the following year Mr. Wallace floated a Company, and the Bombay-Burma Trading Corporation was accordingly incorporated in 1863. The head office of the Company was established at Bombay and the local office at Rangoon. For many years the Company worked in the teak forests of Upper Burma.

troubles that followed the war they carried on their business as usual, giving employment to a large number of the native population. The Company's concessions were duly renewed by the British Government after the war. The principal business of the Company is forest exploitation and the timber trade. Burmese teak, the main product of their forests, being a famous wood, in great demand everywhere. They have large steam saw mills at Rangoon, where the timber brought down from the concessions is cut and dressed. The Company are also in pos-

as Agents for Messrs. McEwan & Co., the North British and Mercantile Insurance Company, and the Alliance Marine Insurance Company. The Managers of the Company are the Hon. Mr. S. Roberts, and Messrs. B. J. B. Stephens and E. J. Holberton. Mill Manager, W. F. S. Perry. Forest Inspectors, E. G. Johnston and P. E. Cleaver. Maymyo; W. G. Moore and H. Nisbet (Forest Managers), Pyinmana; C. B. Moggridge (Forest Manager), Shwebo; W. O. Hannington (Forest Manager), Toungdwingyee; A. L. O'Donoghue (Forest Manager), Mingin; W. A. Bell (Forest Manager), Kindat; F. L. Singer (Forest Manager), Moulmein; Managers J. McGeorge and P. Marshall.

The Hon'ble Mr. SYDNEY ROBERTS, Senior Manager of the Bombay-Burma Trading Corporation, Ltd., Rangoon, comes of an old Kentish family. He was born in London and educated privately. He arrived in Burma at the age of 19, to join the Bombay-Burma Trading Corporation, in which he had obtained

an appointment after the death of his brother who had been killed during the Burmese War of 1885. For the first five or six years Mr. Roberts served in the Company's offices at Rangoon. He was subsequently transferred to active employment in the Company's forests, and for some years worked in various parts of Burma. In 1902 he was recalled to Rangoon to fill the position of Junior Manager, in which capacity he served until the year 1905 when he entered on the duties of his present position.



ELRPANT WORKING TIMBER IN THE FOREST.

session of large forest concessions in Java and Siam where they do a very extensive trade in timber. Here also teak is the main product. The Company possess one of the largest established businesses in Burma. In that country alone, exclusive of Siam and Java, they own and employ over 2,000 elephants and altogether about 10,000 hands. Their timber yards, with the trained elephants dragging and stacking timber, are among the best known sights of the country. In addition to their main business, the Company act

as Senior Manager. The Government honoured Mr. Roberts in October 1907, when he was appoint-



Hon. Mr. SYDNEY ROBERTS.

ed a Member of the Council of the Lieutenant-Governor of Burma.

The late Mr. GEORGE BRUNTON, M.I.C.E. Born at Birmingham, England, January 29, 1823. Fifth son of Mr. William Brunton, Consulting Engineer of the same city, who was a friend of Sir George Stephenson, and had the honour of being one of the first member of the Institution of Civil Engineers in London. Mr. George Brunton studied engineering under his father, and on attaining the age of sixteen years came to India to join his uncle, Mr. Robert Brunton, the Manager of the Indian Iron and Steel Works, Porto Novo, India. The Works were transferred to Beypore on Mr. Robert Brunton's death, and Mr. George Brunton proceeded to that city as Manager of the Works, which position he maintained until they were closed. In 1858, he went to Cochin, where he joined Messrs. Oughterson & Co., Merchants and Shipbuilders. Proceeding thence to Bombay he brought out several inventions, the principal of which was an improvement on the cotton press. Another was a hydraulic valve. He was successful in introducing a system of irrigating paddy lands in Southern India by means

of steam machinery, which successfully displaced the old native methods. He served as Chairman of the Cochin Municipality, and successfully built groynes as a protection to the town against the sea. He died in 1900 at his residence in England. His son, Mr. William Brunton, partner in the present firm of Geo. Brunton & Son, was born in India in 1850 and educated in England. He joined the business in 1868 at Cochin, and on the retirement of his father succeeded to the business, and perfected his father's schemes of irrigation.

Messrs. GEORGE BRUNTON & SON, Engineers, Cochin, Trichur and Alleppey. Established 1858 by the late Mr. George Brunton, M.I.C.E.,



The late Mr. GEORGE BRUNTON.

the firm are largely interested in irrigation works in South India, utilising the drainage pumps invented by the founder. They have also a Foundry at Vypeen, where they are making arrangements for the manufacture of all descriptions of castings in brass and iron. They also undertake the building of boats and launches. A couple of boats running between Alleppey and Quilon for the transport of passengers are partly owned by them, and they intend increasing in number and also extending the places of call. These

boats ply along the Backwater which forms a shallow inlet along the coast some 250 miles in length from Trichur, the ancient capital of Cochin, to Trivandrum, the present capital of Travancore. Fibre forms the staple industry of Cochin, and the firm have three hydraulic presses at work for the pressing of coir fibre and yarn. They employ about 1,500 hands, and all the departments are superintended by Europeans and Eurasians.

Mr. J. E. CARDET BRUNTON, youngest son of Mr. George Brunton, is now starting a line of Motor Ferries called the "Red Star Line," between Quilon and Trivandrum. A long felt need.

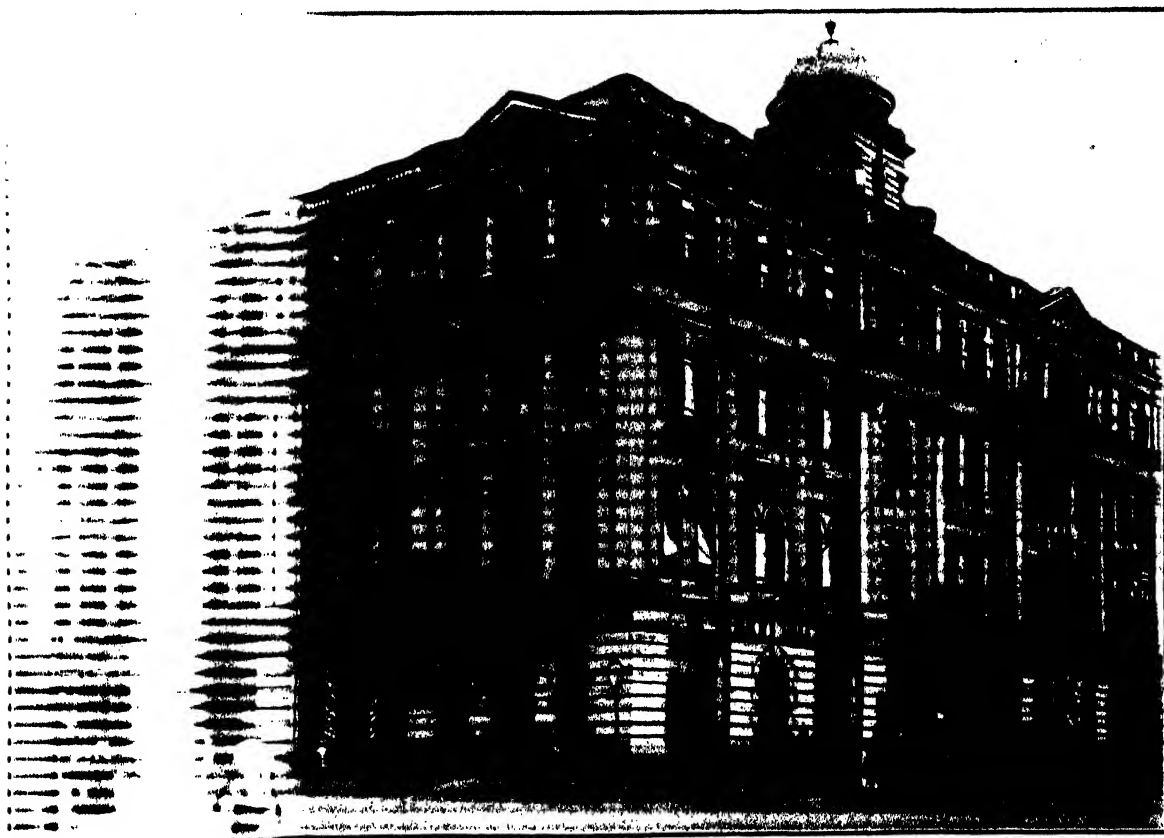
The BURMA ENGINEERING & TRADING COMPANY, Ltd., Machinery and Metal Merchants, Engineers, General Merchants, etc., Rangoon. This Company is an offshoot of the well-known Glasgow firm, Messrs. A. R. Brown, McFarlane & Co., Ltd., and was originally established at Rangoon, under the title of H. P. Cameron & Co., in October, 1906, at 73, Merchant Street, Rangoon, dealing in metals, machinery and hardware generally. Under Mr. H. P. Cameron's management the affairs of the firm prospered from the first, and after fifteen months' successful trading it was decided to form a Limited Company to take over the business, and large premises were engaged at the same address for the operations of the new Company. A strong staff of European assistants has been engaged by the Company to carry on its business under the direction of Mr. H. P. Cameron who continues in the business in the capacity of local Director. The scope of the Company's affairs has been extended and now embraces operations in the various businesses of Machinery and Metal Merchants. Consulting Engineers, Shipbrokers, Soft Goods Merchants and Insurance Agents. The Directors of this concern are identical with those of Messrs. A. R. Brown, McFarlane & Co., Ltd., of Glasgow, namely, Messrs. A. R. Brown, Japanese Consul in Glasgow; Geo. McFarlane, M.I., MECH.E., M.I.N.A., Consulting En-

gineer and Naval Architect, and Ed. Brown. Mr. Cameron acting as above stated as local Director in Rangoon. The parent Company have houses in Japan and China, and a large business with these, as well with the home house, is being rapidly built up by the Rangoon house. No shares in the Burma Engineering and Trading Company have been offered to the public.

The BANK OF BURMA, Limited, Head Office, Phayre Street, Rangoon. Branches, 2nd Line Beach, Madras, No. 5, Fancy Lane, Calcutta. This bank was established in the month of November, 1904, with a paid-up capital of Rs. 2,62,500, and an uncalled capital in reserve of Rs. 2,37,500, making Rs. 5,00,000 in all. The operations of the bank have been successful in the first year, 1905, and the profit was Rs. 1,00,000, or 20 per cent. of the capital. The directors have recommended a dividend of 10 per cent. for 1905, and the shareholders have agreed to increase the authorised capital to Rs. 10,00,000, and the satisfactory results of the

Rs. 5,12,161. Since then the progress of the Bank has been steady. A half-yearly dividend at the rate of 5 per cent. per annum has been paid to the shareholders, and increasing sums regularly placed to the credit of the Reserve Fund, which was represented in December, 1905, by Rs. 10,000, December, 1906, by Rs. 20,000, and December, 1907, by Rs. 66,520. The paid-up capital at the end of 1907 was represented by Rs. 5,08,905, with uncalled capital held in reserve amounting to Rs. 2,37,500. In the year 1907 the net profit, including Rs. 5,543-5-6, carried forward from the previous year, and after paying all expenses, amounted to Rs. 75,673-1-10. This allowed of a dividend at the rate of 5 per cent. per annum, free of income tax, absorbing Rs. 19,510-9-6, leaving Rs. 56,162-8-4 for Reserves and Rest. All preliminary charges and new capital charges were written off. During the year 1907 powers were obtained to increase the authorised capital to Rs. 20,00,000, and the satisfactory results of the

half-year's working, which resulted in a profit of 18½ per cent., emphasised the wisdom of the Directors' action in increasing the capital and thus enlarging the scope of the Bank's operations. The average yearly profit earned by the Bank since the commencement of business stands at 12'66 per cent. to 31st December, 1907, a result which must be considered very satisfactory. The working capital of the Bank was increased by Rs. 29,37,359-15-3 during the year 1907. The popularity of the Bank is rapidly increasing, as is evidenced by the strong upward tendency of its business. At the close of the half-year ended 30th June, 1907, the total amount accounted for in the balance sheet was Rs. 22,03,826-3-3, while at the end of the same year this account had more than doubled standing at Rs. 45,47,805-10-10. The amounts on current and fixed deposit accounts had increased in the same interval from Rs. 10,13,704-5-11 to Rs. 16,80,179-5-11, and all other business in proportion. The balance sheet for the



THE BANK OF BURMA, LTD., RANGOON.

year 1907 showed all the Bank's affairs in an eminently sound condition. The Directors of the Bank of Burma are Mr. S. A. Mower, of Mower & Co., Chairman; Mr. G. S. Clifford, of the same firm, and Mr. W. P. Okeden, of Summers & Okeden. The General Manager is Mr. R. F. Strachan. Messrs. Summers and Okeden are Solicitors to the Bank, and Mr. J. Stuart Smith, C.A., is the Auditor. The Bank's London Agents are Parrs Bank, Limited, Bartholomew Lane, London, E. C., and Williams Deacons Bank, Ltd., 20, Birchin Lane, London, E. C. Besides the branches at Calcutta and Madras, the Bank has Agencies in India and Burma, at Agra, Allahabad, Bombay, Colombo, Cawnpore, Delhi, Darjeeling, Karachi, Lahore, Lucknow, Mussoorie, Mandalay, Nowshera, Peshawar, Poona, Simla, Srinagar, Sialkote and Quetta.

Mr. RICHARD FREDERICK STRACHAN, the General Manager of the Bank of Burma, Ltd., was born at Great Crosby, near Liverpool, England, in the year 1865, and educated at Merchant Taylors' School in the same city. He entered business life in the year 1880. In 1886 he came out to India, and was one of the founders of the Bank of Burma, in association with Mr. S. A. Mower and Mr. G. S. Clifford.

The BANK OF BURMA, Ltd., Madras Branch. F. L. V. Joyce, Manager. The Madras Branch of the Bank of Burma, Ltd., was opened by Mr. Joyce in January 1906, and he has continued to manage it since. The Bank is now thoroughly well known throughout India, their constituents extending throughout the Indian Empire. Mr. Joyce has been connected with the Bank of Burma, Ltd., since its establishment, and previous to this had served in Indian banks since 1897. His previous service was with the Commercial Bank of India, Ltd., in Bombay, and at its various branches throughout India. For some time he was in the service of the Great Indian Peninsula Railway, and on leaving that concern was with Messrs. W. and A. Graham & Co. for about four years. He has had an extensive business experience in railway, commercial and

banking enterprises and has built up a large and sound connection for the Bank of Burma, Ltd., in Madras. He has been connected with volunteering for the past 16 years, serving with the Bombay Volunteer Artillery, Bombay Light Horse, Punjab Light Horse, and



Mr. F. L. V. JOYCE.

Rangoon Mounted Company. He now holds a commission in the Madras Volunteer Guards which he received on 18th June 1908. He is a Mason, and Assistant Secretary of Lodge "Pitt Macdonald" No. 1198.

The BURMA RAILWAYS COMPANY. This Company was formed in 1896 for the purpose of taking over the working of the then existing system of State Railways in Burma, and extending it by the construction of other lines, particularly one from Mandalay to Kunlong. The railways taken over by the Company from Government on the 1st September 1896 comprised the following lines:—Rangoon to Prome on the Irrawaddy River; Rangoon to Mandalay, and thence to the bank of the Irrawaddy, opposite Sagaing; and Sagaing to Mogaung, with an extension to Myitkyina and a branch to Katha. The Managing Director is Lieutenant-Colonel Alfred Glynn Begbie, R.E. The Head Offices are at 199, Gresham House, Old Broad Street, London.

The history of railways in Burma dates back only to 1874, when sanction was first given for the construction of a line from Rangoon to Prome. This line, 161 miles in length, was opened to traffic in 1877 under the name of the Rangoon and Irrawaddy Valley State Railway. The next extension was along the Sittang Valley, north-east of Rangoon, and the line reached Toungoo, 166 miles from Rangoon, by the middle of 1885. After the annexation of Upper Burma, this line was extended to Mandalay, and is now known as the Main line section. Through communication was established in 1889. In January 1890, the Mu Valley extension was taken in hand. This line starts at Sagaing on the north bank of the Irrawaddy, twelve miles below Mandalay, and extends 331 miles to Myitkyina, the last section having been opened in January 1898. Meanwhile a branch line, six miles in length, had been made and opened in 1891 from Myohaung junction three miles south of Mandalay, to a point on the left bank of the Irrawaddy opposite Sagaing and a steam ferry instituted thus completing the connection. In 1893 a branch to Meiktila, 13 miles from Thazi, was opened, and subsequently extended to Myingyan on the Irrawaddy. The branch towards the Chinese frontier was commenced at the end of 1895.

In the following year, when the working of the line was taken over by the Company, 886 miles of line were actually open to traffic. The capital expenditure, up to the end of 1895, had been upwards of seven and a half crores of rupees—Rs. 7,57,29,659 to be exact. The gross earnings for 1895 had been Rs. 67,11,062, the net earnings Rs. 27,02,356, representing a percentage on capital outlay of 3.57, while the proportion of expenses to earnings was 59.73 per cent. The earnings per mile per week had been Rs. 169. As, however, the interest payable on the capital amounted to Rs. 30,01,163, the year's working represented a loss to the State of Rs. 2,98,807. By the end of 1906, the capital expenditure had been nearly doubled (the amount at the end of that year being given at Rs. 13,97,87,368). To show for this, however, there was open line, 1,340 miles in length,

while 253 miles were either actually under construction or sanctioned for construction. These lines are all on the 3 feet 3½ in. gauge. The open mileage of the Burma Railways system is, at present, as follows:—On the Main line section, main line (Rangoon to Mandalay), 386 miles, branches, 81·60 miles; Irrawaddy Section (Rangoon to Prome), 161 miles; Mu Valley Section, main line (Sagaing to Myit-kyina), 331 miles, branches, 91·46 miles; Mandalay-Kunlun Section (Myohaung to Lashio, 177·84 miles), and the Bassein-Henzada-Letpadan Section, 110·96 miles. Of these 387·9 miles only are at present double line, but 77·72 miles line in all will be doubled shortly. Pegu

Lashio, 17 miles from Mandalay, was completed in March 1903. The other branch, from Sagaing to the Chindwin River at Monywa and Alon, was opened on the 15th April 1900. A more recent addition to the line is a branch from Letpadan on the Prome line to the Irrawaddy at Tharawaw, where the river is crossed by a steam ferry to Henzada and thence carried on to Bassein, a distance of 114¹/₂ miles from Letpadan inclusive of the river crossing which is reckoned as 4 miles. The line from Henzada to Bassein was opened for all descriptions of traffic on the 20th March 1903, and in

by the Company, or if it be worked at a loss for three consecutive half-years. Government may also determine the contract on the 31st December 1921, or at the end of any succeeding tenth year, by giving twelve months' previous notice. On determination of the contract from any cause the Secretary of State is to repay to the Company in sterling at par, the capital raised by the latter. The Company has no power to surrender the contract. The terms of working the lines are as follows:— After deducting working expenses the net receipts in each half-year are to be applied in payment to

Government of (1) the equivalent of the interest paid for the half-year on any debentures issued by the Company; (2) the equivalent of the guaranteed interest at $2\frac{1}{2}$ per cent. per annum on the Company's capital of £2,000,000, and of the interest payable on any additional share capital raised by the Company; (3) the equivalent of interest at $2\frac{1}{2}$ per cent. per annum on the sterling equi-

valent of the capital expenditure by Government on the railways up to the date of the transfer, and of interest on any additional moneys supplied by Government. After payment of the interest, as mentioned, any surplus which may remain unpaid in a year ending on the 30th June, is to be divided between Government and the Company in the proportion of four-fifths to the former and one-fifth to the latter.

The figures for 1906 show that, on a capital outlay of Rs. 13,97,87,368, the gross earnings were Rs. 1,57,32,205, and the net earnings



GOKTEIK VIADUCT.

THE MAIL TRAIN CROSSING THE "GOKTEIK GORGE."

through communication with the main line in April of the same year.

The Burma Railways are at present worked by the Company under a contract with the Secretary of State for India, dated 9th March 1897, by virtue of which Government guarantees interest at the rate of $2\frac{1}{2}$ per cent. on the Company's share capital, and provides land free. Government may terminate the contract after giving six months' notice if the Company fails to perform its obligations, or if the undertaking be, in the opinion of the Secretary of State, in course of gross mismanagement.

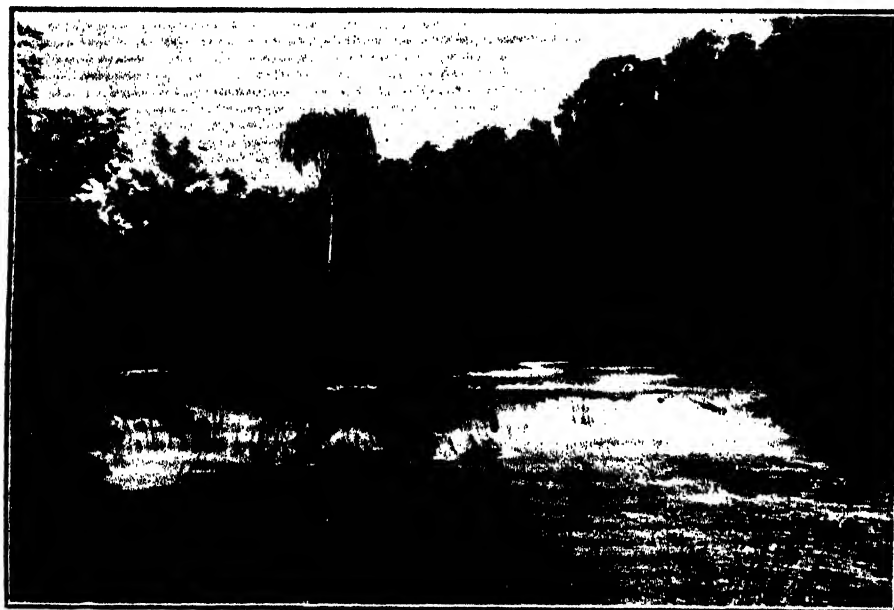
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Rs. 58,61,913, representing a percentage on capital outlay of 4'19. Interest charges amounted to Rs. 46,13,499; and the Company's share of the net earnings was Rs. 5,66,021; the gain to the State

to Myitkyina in the extreme north-east, and the Lashio Branch which runs close up to the borders of China. On this last-named line is some magnificent scenery, and the Burma Railways Company has made ar-

portance on this line, after leaving Mandalay junction, is Maymyo situated on the Shan Plateau, 3,600 feet above sea-level. Maymyo, a small Shan village, was occupied as a military outpost in 1886 and continued as such till 1900, when the advent of the railway brought it prominently into notice as a hill resort. It is now quite an important place, the hot weather resort of the Local Government, with a Club, Post and Telegraph offices, a Civil Hospital and Government rest-houses. It is the fixed head-quarters of the two local Gurkha Battalions, and latterly barracks have been built for the British troops that are from time to time moved up from Mandalay. It is also a trade registering station between China, the Shan States, and Burma; and large quantities of tea, dry and pickled, pass through by train and road. Next comes the Gokteik gorge, which is crossed by the railway at the 83rd mile from Mandalay. The gorge consists of a deep fault in the limestone formation, along which the Nam Hpa Se River runs, and disappears at this point underground flowing for some distance through a lofty cavern, and forming what is locally termed a natural bridge. The railway is carried across the gorge



THE FALLS OF THE NAM YO RIVER BELOW NAM PWI STATION, BURMA RAILWAYS.

being Rs. 6,82,393. The earnings per mile per week were Rs. 225, and the proportion of expenses of earnings, 62'74 per cent. This was, however, a comparatively poor year, the two previous years having shown far better results both to the Company and the Government.

Since the pacification of Upper Burma, following on the deposition of King Theebaw, this interesting country has vastly increased in commercial importance, and it likewise affords a fair field for the investigations of the ordinary tourist. Upper Burma, up to the time of the third Burmese War, was practically unknown territory to Europeans, and their acquaintance with the interior was confined to the fact that it consisted mainly of jungle, and was therefore unsuitable for military operations. Now, the heart of the country is pierced by the extension of the Burma Railway from Toungoo to Mandalay and on

rangements along the line of route which enable travellers to see all there is to be seen, with the smallest inconvenience to themselves that is possible. The first station of im-



ENTRANCE TO THE SECOND TUNNEL, GOKTEIK, ON THE BURMA RAILWAYS.

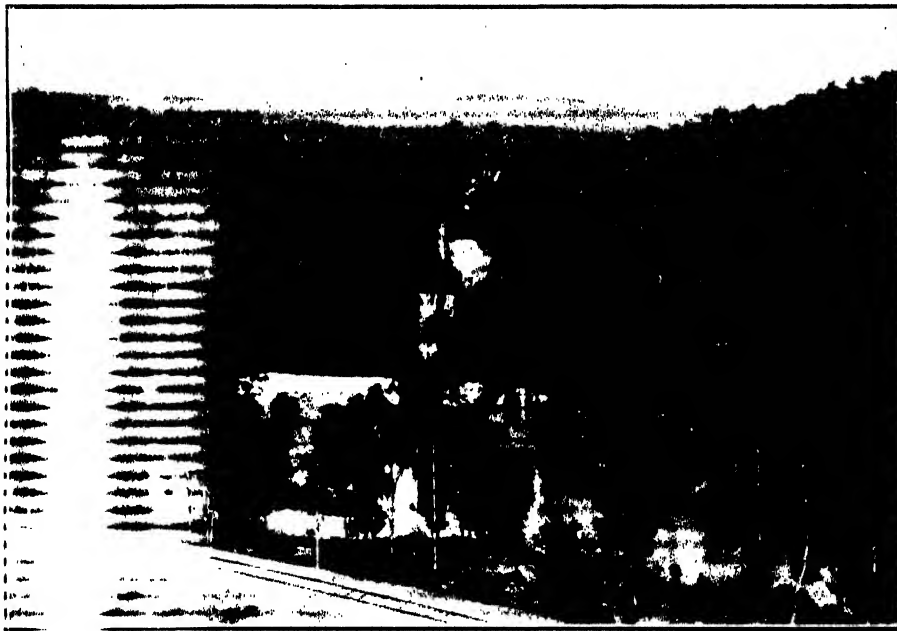
by a lofty steel viaduct, 1,620 feet in length, to which the line winds down the hill-side on the south approach and climbs up again through a couple of tunnels on the opposite or north side. The viaduct was erected by an American firm, and was begun on the 9th January 1900, and completed on the 1st June 1901, when the first train ran across. The scenery of the gorge is very fine and a magnificent view of the viaduct, and its approaches can be obtained from the rest-house belonging to the Railway Company, which is free to first and second class passengers. Some miles further on is Hsipaw, the capital of the State of the same name, where the Sawbwa has his residence. After leaving this point the line

line in this direction, is situated 3,100 feet above sea-level. It is 177 miles from Mandalay and 95 miles by road from the Kunlong Ferry over the Salween, the boundary between Burma and Yunnan at this point. Lashio is the head-quarters of the Superintendent of the Northern Shan States, has Post and Telegraph offices, and is occupied by the Lashio Military Police Battalion.

Sagaing, which is the southern terminus of the Mu Valley section of the railway, lies twelve miles south of Mandalay, on the opposite bank of the Irrawaddy. The river at this point is at present crossed

pital, and a dak bungalow. There are numerous pagodas in and near Sagaing, the most famous being Nga-dat-gyi and Kaunghmudaw. Largely attended festivals are held at these two shrines yearly in October. Running almost due north from Sagaing the railway passes through Shwebo, which was the capital of the kingdom of Burma in the reign of Alompra, who lies buried within the crumbling walls of the town. The next station of importance is Wuntho, which was, till 1891, the chief town of an independent district under a Sawbwa of reputed Shan origin. Then comes Naba Junction, and from

this point a short branch line takes the traveller to Katha. This branch runs over the Petsut Pass, and rises 340 feet after leaving Naba, after which it has a fall of 508 feet for the remaining nine miles to the river bank. Katha is the head-quarters of the District of the same name, and the jumping-off station for Bhamo, 70 miles further up the river; the journey



VIEW OF FALLS FROM ABOVE THE NAM SAN CUTTING ON THE LASHIO BRANCH OF THE BURMA RAILWAYS.

by ferry steamer to the Amarapura station on the left bank, but a bridge has, as already stated, been sanctioned, and is expected to be completed in about three years' time. Sagaing is situated at the end of a range of hills, which bounds the river bank for some miles northward. The town lies along the river bank which here trends east and west. On the opposite bank are the ruins of the old capital of Ava. Sagaing, which was a capital in 1315 before Ava was founded, and was again occupied as such from 1760 to 1764, is at present the head-quarters of a Commissioner and of a district. It has Post and Telegraph offices, a hos-

pital, and a dak bungalow. There are numerous pagodas in and near Sagaing, the most famous being Nga-dat-gyi and Kaunghmudaw. Largely attended festivals are held at these two shrines yearly in October. Running almost due north from Sagaing the railway passes through Shwebo, which was the capital of the kingdom of Burma in the reign of Alompra, who lies buried within the crumbling walls of the town. The next station of importance is Wuntho, which was, till 1891, the chief town of an independent district under a Sawbwa of reputed Shan origin. Then comes Naba Junction, and from this point a short branch line takes the traveller to Katha. This branch runs over the Petsut Pass, and rises 340 feet after leaving Naba, after which it has a fall of 508 feet for the remaining nine miles to the river bank. Katha is the head-quarters of the District of the same name, and the jumping-off station for Bhamo, 70 miles further up the river; the journey

being continued by steamers of the Irrawaddy Flotilla Company, which run daily in connection with the trains. The main line continues from Naba in a north-easterly direction, the first station of importance after leaving Naba being Mohnyin. The district hereabouts is said to have been formerly occupied by Chinese. The plain at one time must have been well cultivated, but owing to the raids of Kachins from the hills to the west, the land was gradually deserted. Fifty miles further on is Mogaung, formerly the capital of a Shan kingdom. Later on it came under the influence of China, but in the 18th century

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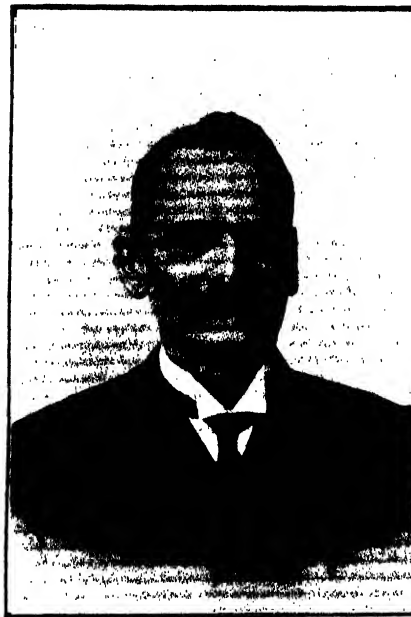
submitted to King Alompra. The next station is Myitkyina, the northern terminus of the railway. The town lies on the right bank of the Irrawaddy, and away to the east, on the other side of the river, is the Chinese frontier, about twenty-five miles distant. The delineating line is a range of hills, with peaks as high as 10,000 feet, the Sansi gorge, leading to Ta-li-fu, being over 8,000 feet high. It may here be noted, with reference to the suggestion now being made for the further extension of the Burma Railway to Ta-li-fu, in view of the great extension of French influence in Indo-China, and the construction of the railway from Tongking to the frontier, which is expected to be completed by October 1908, that if the proposed extension is carried out, this is the section of the line that will be extended.

The BURMA RICE AND TRADING Company, Ltd. (Branch), Moulmein, Burma. Rice Mill Proprietors and Merchants. Established at Moulmein in the year 1907. Head offices, London and Rangoon. This Company was established out of the Firm of Kruger & Company, Ltd., which was one of the oldest established firms in Moulmein. They own one rice mill on the Moulmein side of the River Moulmein, and another on the other side of the same river at Martaban. Both of these mills are fitted with white rice machinery. The land on which the mills are built is freehold and the property of the Company. Nearly all the shipments of rice made by the Company go to Germany, the Company being connected as an offshoot with the Reis & Handels A. G. of Bremen in the German Empire, which is the largest rice concern in the world.

Mr. Carl Ebell, Manager of the Burma Rice and Trading Company, Ltd., Moulmein, was born in the year 1876 in Germany and educated mostly in the same country. On the completion of his education he served with a German mercantile firm, where he received his commercial training. He came to Burma to join the firm of Kruger & Co. in the year 1899, and served that firm in Rangoon till 1904 when he took furlough. On his return he was appointed Manager of the Moulmein

Branch. He takes a keen interest in local matters and sport, and is Honorary Secretary to the Moulmein Racing Club.

Mr. SPERIDON GEORGE CALOGREEDY, Merchant and Trader, Proprietor, Upper Stores, and S. G. Vertannes & Co., and the Printing and Stationery Company, Mandalay. Mr. S. G. Calogreedy is the son of the late George Panioty Calogreedy, who was sent from Calcutta to Burma when King Mindoon ascended the throne of Upper Burma as Agent of Messrs. Barol & Co., Diamond Merchants.

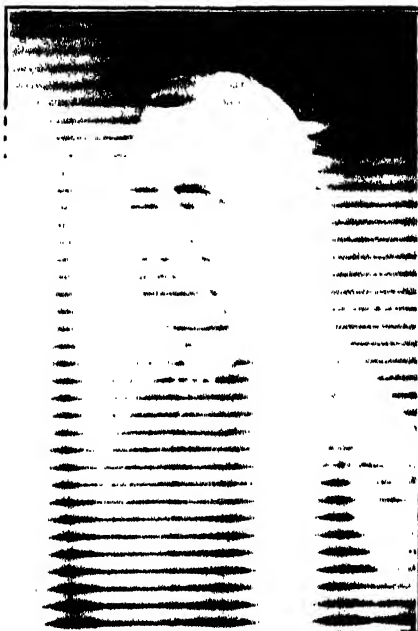


Mr. S. G. CALOGREEDY.

He subsequently joined the mercantile firm of Messrs. Halliday, Bullock & Co., and acted as their Agent in Mandalay, doing business for them in earth oil at Yenangaung, and teak in the Chindwin and Mu Forests. He obtained a lease of the Mu Forests in 1868 for five years, but, while he was working the concession, he had the misfortune to be killed by a wild elephant in 1870. His son, Mr. S. G. Calogreedy, was born in Calcutta in 1852, and educated in the same city, and at Rangoon. He secured an appointment in the Bombay-Burma Trading Company in 1880, by favour of Mr. J. C. Bryce, Managing Director. With this Company he served the full term of

21 years, retiring in 1902. During the term of his service he was Manager of the Mu Forests. On his retirement he devoted himself to commerce and trade, and has acquired the proprietorship of the concerns detailed above. He has three sons and five daughters. His sons assist him in the management of his various businesses. During the war of 1885, Mr. Calogreedy did signal service to the British Government, for which he was specially thanked by the authorities. He performed the dangerous duty of proceeding to Mandalay just previous to the war in the *S. S. Doo-woon* (Captain Mathews), to warn all British subjects of the ultimatum to be given to King Theebaw in October, 1885, and require them to leave in 24 hours. Also to warn all the employees of the Bombay-Burma Trading Company of the impending troubles, and to take away the elephants, the property of the Company, to British territory. During the war that ensued Mr. Calogreedy lost a brother, killed at Parlick, a village near Kyoukse, by the followers of the Myinzaing Prince. He performed other services of importance at that time in the Yeu and Shwebo Districts, with the Deputy Commissioners then appointed, Mr. A. S. Fleming, Mr. B. Haughton and Mr. W. N. Porter. It was due to his personal influence that the Sawbwa of Wuntho, Aung Myat, was persuaded to remain quiet, though he could not be persuaded to come in and make his submission to the British Government. Mr. Calogreedy undertook a most dangerous duty in visiting the Sawbwa, as the whole country was then entirely in the hands of six dacoit leaders. He visited the Sawbwa on a second occasion in February 1887, when he persuaded him to pay the tribute of Rs. 30,000 per annum to the British Government, which he had previously paid to King Theebaw. It was not till February, 1891, that the Sawbwa ultimately broke into rebellion against the British Government. Mr. Calogreedy, owing to his knowledge of the country and people, was also able to render the Government efficient aid by collecting information and acting on occasion as guide to expeditionary columns in the Shwebo and Yeu Districts.

Messrs. CARSTENS & Co., General Merchants, Moulmein. This firm is one of the oldest established in Moulmein, and dates from the year 1860 when it was started by Mr. H. Murken under his own name. Mr. Murken was the first to manufacture ice in Moulmein, bringing out a machine for that purpose in the sixties. The ice business was subsequently sold to the Moulmein Ice Company, which the present proprietor of the business, Mr. Christoph Heinrich Carstens, managed for some years. On the death of Mr. Murken, in the year 1887, Mr. Carstens acquired the business and changed its title to the above.

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He is one of the founders of the Burma Motor Transport Company, Ltd., of which he is the present Manager and Secretary. Mr. Carstens takes a considerable interest in local affairs, having been elected a member of the Municipal Council for the first time about 12 years ago. He served one term of two years in an elected capacity. In January 1907, he was appointed a Municipal Commissioner by the Government, and he still fills this position. He has identified himself with the country and has been connected with the volunteer movement ever since his arrival in Moulmein, and serves as a member of the Moulmein Volunteer Artillery in which he holds rank as Battery Sergeant-Major. He holds the long service medal. He has been forward in all movements for the welfare of the town. Mr. Carstens is a very prominent member of the Craft. He is a member of Lodge "Philanthropy" and was Master in Mark Lodge, Ark Mariner, Holy Royal Arch, Temple and Malta, Secret Monitor and Rose Croix. In the year 1906 he was D. G. S. W. and Principal of District Grand Chapter, and also a Past Warden in District Grand Mark Lodge.

Messrs. CHAMBERS & CO., Import and Export Merchants, Lecots Buildings, Madras. This firm was established in the year 1903 by the sole proprietor, Mr. G. A. Chambers. Their business chiefly consists in dealing on a large scale in skins and hides, gathering their supplies from all parts of India, but chiefly from the districts south of Bombay. They handle dry, pickled, wet, salted and tanned goat and sheep skins, also tanned hides. Their turn-over of tanned hides amounts to about 40,000 monthly. Besides these specialities the firm deals in general produce for export and has the most powerful hydraulic press in Madras for pressing and baling fibres, wool, hide, fleshings, silk waste, jute, etc. The firm possesses extensive premises and their godowns are some of the best in Madras, being of brick with tiled roofs. In their spacious offices four European assistants with a staff of twenty clerks are employed and

some 60 to 100 hands in the godowns. Messrs. Chambers & Co. are Secretaries to, and Mr Chambers, Director of, the Indian Fibre Company, an extensive Agave-growing concern having some 500 acres under cultivation in the Chingleput district and 1,000 acres in the Anantapur district. Mr. Chambers is also the proprietor of some 350 acres under Agave at Pallavaram near Madras. Their Tannery where all kinds of hides and skins are tanned and pickled for export is situated at Tondiarpet, Madras. This branch of the business is being considerably developed and just lately the firm has taken over the leather finishing works of Messrs.



Mr. G. A. CHAMBERS.

Brown & Co. and, under expert European Management and with the use of additional machinery, high class finished leathers of all descriptions are being produced. In addition to their own business in tanning Chambers & Co. handle large native consignments principally in tanned hides and skins; they make advances to the consignors and receive their produce for public auction in London. The firm is well represented at all the principal centres of the hide and skin trade, having buying agencies all over India, and selling agencies in the principal cities of Europe, the United States and Australia. They issue a very com-

plete produce market report with quotations of the various articles of produce shipped including nuxvomica, Sisal and Palmyra fibre, ground-nut oil cake, castor seed, tamarind, jute, cotton yarn, silk waste and other descriptions of country produce, with special reference to the Madras Presidency. Recently the firm has taken up business in general imports and have erected a large show-room for the exhibition of manufacturers' samples; they have also acquired the business of Messrs. Brown & Co., Tanners and Leather Furnishers of Tondiarpet, Madras, and purpose continuing and extending the trade in their own name under expert European supervision.

The long experience the firm have had in the leather trade, both in raw and tanned hides, eminently fits them to develop this new branch of their business. Mr. George Alexander Chambers, sole proprietor of the firm of Chambers & Co., Madras, was born in Kent in the year 1868 and educated at Taplow Grammar School. He received his early commercial training with Messrs. de Clermont and Donner, East India merchants, London; he remained with this firm some eight years and in 1891 joined the London Office of the firm of Messrs. W. J. Eales & Co., and at the expiry of a year and-a-half was transferred to the firm's Madras office where he remained three years. After leave he returned to Madras and established the business of Messrs. Alfred Young & Co., Merchants, in that city. After managing this business for five years Mr. Chambers returned to England, but came out again in

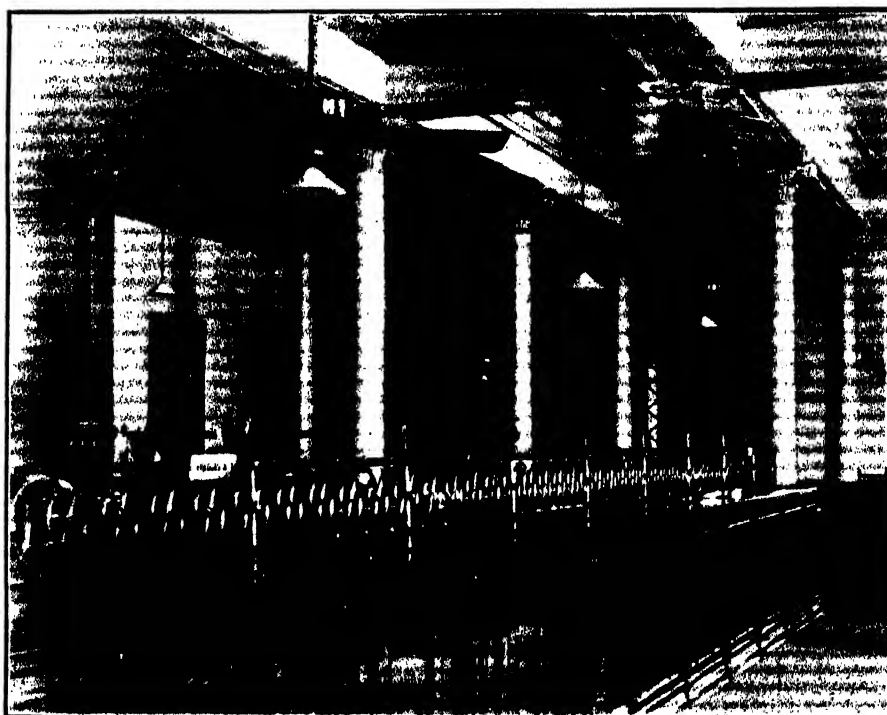
the year 1903 to establish his present firm of Chambers & Co.

CHARTERED BANK OF INDIA, AUSTRALIA AND CHINA. Incorporated by Royal

Charter in the year 1851. Head Office, Hatton Court, Threadneedle Street, London, E.C. The Bank has a Capital of £1,200,000, Reserve Fund of £1,475,000, and Reserve Liability of Proprietors of £1,200,000. The Board of Directors is composed of William Christian, Esq.; Sir Henry S. Cunningham, K.C.I.E.; Sir Alfred Dent, K.C.M.G.; Henry Neville Gladstone, Esq.; Emile Levitta, Esq.; Sir Montagu Cornish Turner; Lewis Alexander Wallace, Esq.; and Thomas Cuthbertson, Esq. The Managers are Mr. Caleb Lewis and Mr. T. H. Whitehead. Sub-Manager, Mr. Thomas Fraser. This well-known Bank is the



CHARTERED BANK OF INDIA, AUSTRALIA AND CHINA, RANGOON



INTERIOR OF CHARTERED BANK OF INDIA, AUSTRALIA & CHINA, RANGOON.

senior institution of its kind in India and the Far East. Its agencies and branches are established in all the British Asiatic possessions, and in China, Japan, the Philippines, and Java. The Rangoon branch was established in the year 1862 by the late Mr. Alexander Watson, who husbanded its affairs with marked ability for the long term of 30 years. Mr. John Wilson has been in charge of the agency for the last 10 years, and Mr. William Dickson, who officiates in the absence of Mr. Wilson, has been 25 years in the Bank's service at the head office and various branches in India, Ceylon, Straits and China.

The Bank conducts a general banking and foreign exchange business, in which capacity it has figured conspicuously in financing both the internal and external trade of Burma during the past

years (1862-1908). For many years it has been the business

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bilities of wealth, and his naturally charitable and public-spirited character induced him to launch forth in all kinds of work for the public good. As far back as 1865



Rai Bahadur V. GOVINDA CHETTIAR.

he built at the cost of over a lakh of rupees a Rest House for Travellers. This institution has accommodation for about 30 travellers who, besides being provided with lodging, are furnished with



The late Mr. GUNGATHARA CHETTIAR.

food. The Rest House was formally opened in 1871 by Colonel Richard Meade, the well-known Commissioner of Mysore. It maintained at a cost of Rs. 2,000 per month, mainly derived from a special fund for charities. Mr. Govinda Chettiar was the active spirit of nearly every public movement in his day, and, in recognition of his endeavours for the good of the country and the public, Government bestowed upon him the title of Rai Bahadur. He was the first citizen of Bangalore to attain this honour. He left a son Mr. Gungathara Chettiar who followed his father's footsteps and exhibited the same amiable traits of character.



Mr. V. MASILAMONY CHETTY.

and was noted as a charitable and loyal citizen. He maintained the charities of his father and improved them in a variety of ways. On his own account also he has contributed to public objects. At a cost of Rs. 10,000 he instituted a Ward in the Bowring Hospital which was formally opened by the late lamented Lady Curzon, wife of the Viceroy of India. In his time Mr. Gungathara Chettiar was one of the most prominent citizens of Bangalore and well known to all residents in the locality. His death occurred at the age of 55 years, on July 21, 1903. He left a son Mr. Masilamony Chetty, who is now

a gentleman of middle age. This gentleman was educated at the Wesleyan Mission School, and on completing his education joined his father in the Brewing business. He is also largely interested in Coffee planting. He takes great interest in public affairs and has been appointed a Bench Magistrate. For the past three years he has served as Municipal Commissioner for the Civil and Military Station of Bangalore. He possesses the family disposition for charitable works and is extremely popular. His latest public act is the provision of a handsome gate to the local St. Martha's Hospital.

Messrs. A. J. COHEN & Co., Brokers, 80, Mogul Street, Rangoon. This firm was established in the year 1889, and deal in rice, paddy, general produce and gunnies. The sole partner is Mr. A. J. Cohen. This is one of the pioneer firms of produce brokers in Rangoon. They have agencies at Calcutta whence they import gunnies and other produce. Mr. A. J. Cohen is a member of the Rangoon



Mr. A. J. COHEN.

Brokers' Association, of which he was one of the original pioneers. He was a member of the Port Defence Volunteers as well as of the Mounted Company, Rangoon Volunteer Rifles, till compelled to

resign owing to pressure of work. He has travelled extensively in India.

Messrs. CURSETJEE COWASJEE, Watchmakers, Bombay. This firm is now managed by Mr. Jehangir Cursetjee Cowasjee, second son of the late Mr. Cursetjee Cowasjee,

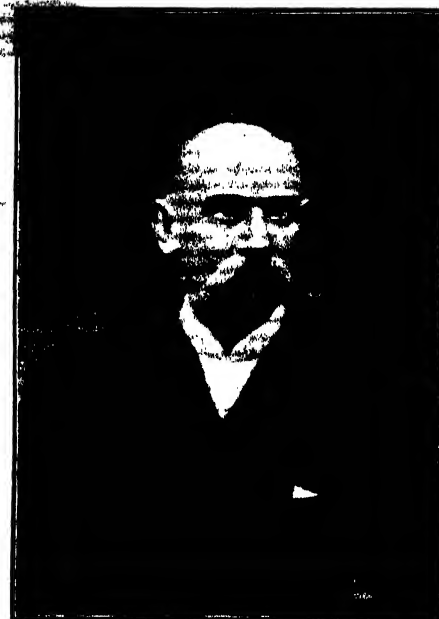


Mr. JEHANGIR CURSETJEE COWASJEE.

great-grandson of Mr. Joghajee Ruttonjee, the first Parsi watchmaker in Bombay and probably in India. Mr. Joghajee had received training in this ancient art from a French watchmaker who had come to Bombay in 1728. Since then every member of the family learnt watch repairing from its elders. Mr. Cursetjee Cowasjee learnt the art from his cousin, Mr. Jamshedjee Muncherjee *alias* Chika Ghadially, the famous watchmaker, who also was descended from the above-named Mr. Joghajee Ruttonjee. He opened his shop in Meadows Street in 1857. At that time there was a well-known European firm of watchmakers in Bombay carrying on business under the name and style of Rosselett & Co. whose work of all sorts of repairs was entrusted to Mr. Cursetjee. He was appointed watchmaker to the G. I. P. Railway in 1857, the same year when the Railway was started, and in a short time he obtained entire confidence of the Agents as well as of the public, and distinguished him-

self like his cousin the famous Chika Ghadially. Mr. Cursetjee died in 1879 and the business was then carried on by his two sons, Messrs. Cowasjee and Jehangir, of whom the former died in 1905. The firm is now carrying on business on a large scale in Bombay under the sole ownership of Mr. Jehangir Cursetjee Cowasjee. The firm are still watchmakers to the G. I. P. and also other Railways, and has earned a great reputation amongst high European officials for repairing any sort of watches and clocks, however intricate and complicated their parts may be. The family has conducted the business of watchmaking for the last two centuries, and Mr. Jehangir, the head of the present firm, is training his eldest son, Mr. Nadirshaw, also in the same line.

Messrs. G. D'ANGELIS & SON, Hotel Proprietors, Confectioners, and up-country Caterers, Madras. The firm have carried on a confectionery and restaurant business for some years past in Madras, and have established themselves as



Mr. G. D'ANGELIS.

a business of importance to the whole of South India in this line. They have recently opened a very fine Hotel known as the "Hotel D'Angelis," which occupies a central position in the most important

part of the European business quarter of Madras. The buildings have been specially erected for the hotel, and every care has been taken to render them comfortable, stylish and hygienic. Expenditure to secure

Bathrooms fitted with the latest European sanitary conveniences, and the flushing system, are attached to each suite of rooms. The whole of the establishment is furnished with electric lights, fans and

have secured the services of Mr. J. Radesco, of Bucharest, who has a very wide experience of hotel and restaurant management in Europe and America. Mr. J. Radesco has risen to the position of Manager from the bottom of the ladder, and he has thus gained a thorough knowledge of every department of a first class hotel. Mr. J. Radesco was for over four years a superintendent at Messrs. J. Lyons & Co., Trocadero Restaurant in London, and he afterwards successfully managed the Hotel Metropole in St. Moritz, Switzerland, and the Grand Hotel Weber in Antwerp, Belgium. Needless to say Mr. Radesco will consider it his duty to make the hotel a comfortable home to all its visitors. English, French, Italian, German, Hungarian and Spanish are spoken. Mr. Giacomo D'Angelis is an



HOTEL D'ANGELIS, MADRAS.

Italian and was born at Messina in Sicily. After leaving school he was apprenticed to the confectionery trade in France and subsequently practised the same trade in Paris, where he was employed in a large hotel in that metropolis. When the Duke of Buckingham accepted the appointment of Governor of Madras he engaged Mr. D'Angelis to come to India in his suite, as confectioner. In 1880 the Duke returned home, and Mr. G. D'Angelis elected to

belles, and there is an electric lift to all the floors. There is a fine billiard saloon fitted with three tables by J. W. Roberts, card rooms, smoking room and reading room, besides a special reading and writing room reserved for ladies, on the premises. Messrs. D'Angelis have a high reputation for French, English and Italian Cookery, and in this respect the Hotel D'Angelis is second to none in the East. For the management of the Hotel, Messrs. D'Angelis

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THE PARISIAN GARDEN, HOTEL D'ANGELIS, MADRAS.

Municipal Engineer at Rangoon for 18 years. His appointment to this position dates back to 1872, and he was in the course of his long official career intimately associated with a most important period in the development of the town of Rangoon, as during those years the town was fast coming into prominence from its previous rather obscure position. In the year of his resignation, 1892, Mr. Deacon Clark decided to turn his engineering talents to account on his own behalf, which his intimate knowledge of Burmese engineering affairs well fitted him to do. To this end he took into partnership Mr. S. J. Hall and together they started the present firm of Messrs. Deacon Clark & Co. which grew and prospered from the first under their able guidance. Mr. Hall was well fitted to be Mr. Deacon Clark's associate in the business, as he had worked under him as Assistant Engineer on the Rangoon Municipality for the whole of the eighteen years during which Mr. Clark had served as Engineer to

that body. Messrs. Deacon Clark & Co. now carry on a very extensive business as Civil and Consulting Engineers and Architectural and Constructional Engineers. They are open to contracts on the largest scale for constructional works of all kinds, the building of railway lines, cuttings and embankments, construction of public and private buildings, and all other works which come within the purview of the best architectural and engineering contractors. In the early years of the firm Messrs. Deacon Clark & Co. accepted the contract for the construction of 21 miles of Railway at Katha, Upper Burma, for the then Burma State Railway, and carried the contract through in an eminently satisfactory manner. They have also steadily carried out large contracts for the Public Works Department in Upper Burma, undertaking a good deal of building and other work at Mandalay, Myingyan and Meiktila. A great many of the public buildings in Burma are the work of this firm, and they have an excellent

reputation for this class of work. Among the edifices erected for private firms are the fine premises of the National Bank at Rangoon, and in various towns in Upper and Lower Burma there are many other excellent specimens of Messrs. Deacon Clark & Co.'s work. At the commencement of the firm's business career they held the Agency for Messrs. Burn & Co., Ltd., the well-known Engineering Company of Calcutta and handled all the specialities of that firm in Burma for eleven years till, in 1905, Messrs. Burn & Co. were so satisfied with the Burmese business that they decided to open a branch of their own at Rangoon, when the Agency ceased. Besides acting as Engineers, Messrs. Deacon Clark & Co. carry on a large trade in building requisites and sanitary appliances and fittings. They are agents for Messrs. William Lee & Co.'s celebrated Portland Cement of superior English manufacture, also for the Basel Mission Tile Works, South Canara and Malabar, for Mangalore



CHUDLEIGH HOUSE, RANGOON. ERECTED BY MESSRS. DEACON CLARK & CO.

tiles. They hold a large stock of modern sanitary fittings, flush tanks, C. I. tubes and fittings, wash-hand basins, pedestal closets and C. I. baths, iron tubing and fittings in all sizes from $\frac{1}{2}$ to 6 inches, stoneware pipes of high class English manufacture in all diameters, decorative glass, tinted Cathedral glass in beautiful designs, in art glass lead lights, electric fittings, electroliers, light switches, fans, etc. The late Mr. Deacon Clark was a member of the Institution of Civil Engineers. The present partners in the firm are Messrs. Samuel John Hall and Malcolm Mathieson.

Mr. SAMUEL JOHN HALL, senior partner of the firm of Messrs. Deacon Clark & Co., was born in India in the year 1849 and educated in the same country. His first experience was gained in railway engineering. At the age of 17 he joined the service of Messrs. Scott and McClelland, and remained with them until the expiry of this period he accepted an appointment with the firm of Messrs. Scott and McClelland, of

was to link up Calcutta and Bombay. With this firm Mr. Hall remained four years, and after the

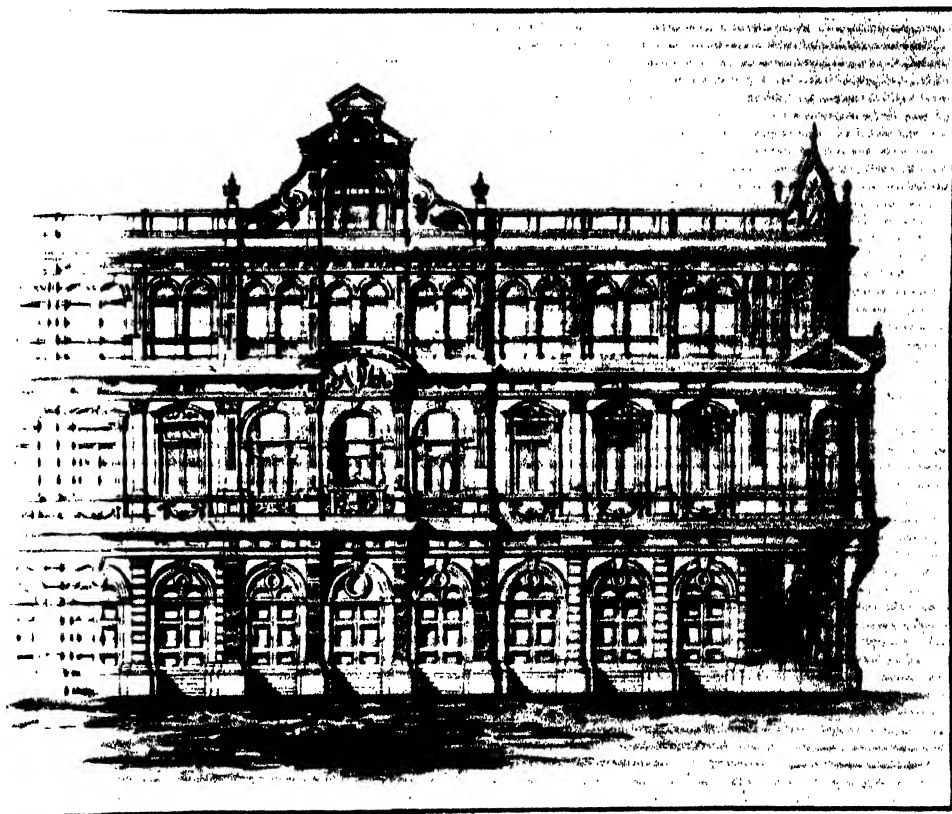


MR. S. J. HALL.

expiry of this period he accepted an appointment with the firm of Messrs. Scott and McClelland, of

Bombay. In the service of the latter firm he was placed in charge of the construction of the Tulsi Dam which forms the Reservoir for the water-supply of the city of Bombay. This work he satisfactorily carried out. With this firm Mr. Hall remained about five years, till, in 1875, he took the opportunity offered him of joining the Rangoon Municipality as Assistant Engineer and resigned the service of Messrs. Scott and McClelland. For the next seventeen years, till 1892, Mr. Hall served the Rangoon Municipality in this capacity, under Mr. Deacon Clark, the Chief Engineer. During his connection with the Rangoon Municipality Mr. Hall superintended the Water-works and the Drainage works, which included the formation of the Victoria Lake and the raising of the level of the Royal Lake, Rangoon.

Messrs. E. M. DESOUZA & Co., Wholesale and Retail Chemists, Druggists and Ophthalmic Opticians, Rangoon, Maymyo, Bassein and Poozoondoung. This firm was established by Mr. E. M. DeSouza, in a corner of the premises



Messrs. E. M. DeSouza & Co.'s PREMISES, RANGOON.

now occupied, in the year 1878. From a very small concern, the business has grown, during the thirty years it has been in existence, to be one of the largest of its kind in Burma. As the business grew, more space for its convenient working has been added year by year, and the result is the present large and commodious three-storied head-quarters of the firm at Rangoon, which have a frontage of 57 feet towards Dalhousie Street and extend from Tseekai Maung Tawlay Street to 31st Street, covering a ground area alone of 10,150 square feet.

At the time the firm was established, Europe medicines were little known amongst the natives of Burma. These have now become very popular, and the firm of E. M. DeSouza & Co. is credited with a very large share of the work of introducing their usage amongst a very sceptical race of people, who had strong belief in the curative powers of their native drugs. Gradually, their unbelief in Europe medicines was broken, and to-day, DeSouza's Trade Mark "Dah" is a household word in every town and village throughout the length and breadth of the Province. As the business increased, the firm extended its operations and opened branch establishments in various parts of the Province,—first at Bassein in the delta of the Irrawaddy, next at Maymyo, the seat of the Provincial Government during the hot weather, and then at Poozoondoung, a suburb of Rangoon. In addition to a very extensive retail trade in which the firm enjoys the patronage of the European population, amongst whom are included the highest Government officials, they conduct a very large wholesale trade and supply most of the large general trading Companies, Rice Mills, Missionaries, the smaller Dispensaries, and native drug sellers throughout the Province, with their requirements; they are also Drug Contractors to the Government and supply all the Municipal Hospitals in Burma with drugs, surgical instruments and appliances and hospital furniture. An optical department under the direct supervision of an Ophthalmic Surgeon has recently been added;

this is rapidly becoming a very important branch of their business.

The concern is under the management of Mr. J. W. Murdoch, Chemist, a partner of the firm, who is assisted by a staff of European registered chemists, who have the various departments under control, in addition to a large staff of qualified dispensers, clerks, etc.

From its foundation, the firm's policy has continuously been one of consideration and regard for all with whom it has had business relations, and it has always prided itself on the high quality of everything it handles; to these facts is due the high popularity which the firm enjoys to-day.

Messrs. K. M. DEY & CO., Merchants, Contractors and Commission Agents, of Nos. 45, 46, 47 and 48, Radha Bazar Street, Calcutta. This well-known and old-established firm was founded about sixty years ago by the late Babu Khetter Mohun Dey. Originally starting as Civil and Military Contractors on a small scale, the firm gradually extended its operations, up to the year 1858, when it was specially commissioned by the then Inspector-General of Police of the Lower Provinces to supply uniform clothing to the whole staff of the Police in Bengal in all its districts; a contract which the firm has continued to hold up to the present day. The satisfactory execution of all orders entrusted to the firm, and the integrity of its dealings with its various constituents attracted the attention of the Military authorities, by whom it was favoured, in 1880, with the contract for supply of service regulation helmets to the whole of the British troops in India. This contract was carried through to the satisfaction of all concerned, up to the year 1905, when the Government of India decided to have the head-gear of the British troops serving in the country supplied from England. Under arrangements with the British Government, the bulk of the pith helmets used by the British troops in South Africa during the late Boer War, and all the helmets served out to the troops in the Soudan Expedition of 1884, were supplied by

Messrs. K. M. Dey & Co., who were recognised to be one of the most reliable firms of contractors to the Government in India.

The founder of the firm, the late Babu Khetter Mohun Dey, died in 1884, and on his death the senior partnership devolved upon his eldest son and executor, Babu Surruth Chunder Dey, who, by his business talent, and with the co-operation of his brothers and co-partners, has greatly extended the business of the firm, and added considerably to its stock in trade and capital. The management of the business, in both its administrative and executive branches, is entrusted to the junior partner, Babu Krishna Chunder Dey, whose business capacity and power of organisation, combined with energy and straightforwardness, have secured a vast amount of business for the firm, and have been the means of extending its relations with foreign countries. It is to his efforts alone that the establishment of the firm's extensive jute business at Chandpur in the district of Tipperah is due, and it was through his exertion that the sole agency for the sale of Ruberoid Roofing in India and Burma, and of Hall's Sanitary Washable Distemper Paint, were secured by the firm. Besides other business Messrs. K. M. Dey & Co. are the Managing Agents of the Nilgiri Granite and Stone Company, Limited—a company incorporated for the purpose of quarrying Granite stone from the Nilgiri Hills near Balasore in the province of Bengal. Mr. Dey has taken a great deal of interest in developing this native industry in the country. To facilitate transport of these minerals a Light Railway from the quarry to Balasore has been laid, and it is generally remarked that although the concern is the first of its kind in Bengal, its prospects are very bright and the success of the enterprise a matter of certainty.

DUN WOOD AND FURNITURE SUPPLY CO. This firm of Timber Merchants and Manufacturers and dealers in Art and General Domestic, Mercantile and Office

Furniture was established in the year 1902. The Head Office is at Dehra Dun situate on the Rajpur Road (the Old Club premises). The firm deals in timber which it uses not only for its own furniture workshop, but also supplies the trade in its own district. In addition to this it also supplies to various business centres in other parts of India. At the Factory at Dehra Dun where the furniture is made for the firm, over 100 hands are employed, principally Sikhs. The firm has also its branches established at Mussoorie, Bareilly, and Meerut, where business is carried on in an extensive manner, and the firm enjoys all round a good reputation, and to maintain which it always takes very great care at all costs and risks. The chief articles of furniture made are cabinets, almirahs, chests of drawers, office tables and

Fusiliers (the old 20th) at Belfast, Ireland, and was there for one year. He then came out to Quetta in the 2nd Battalion of the same regiment where he served for four years, after which he joined the Native Army and served in the 7th Bombay Lancers for about three years. But being fond of independence and having a natural tendency towards trade, he severed his connection with the Army in the year 1902, and entered business starting his commercial life at Dehra Dun under the denomination of the present firm he owns and manages. He has been successful in his venture, thus proving that the change in life he attempted was undertaken after due deliberation and mature thought. His commercial acumen can be gauged by the present flourishing condition of his business, and the various branches it has been found necessary to open to meet the wants of buyers in a prompt way. Working single-handed, he has built up a trade in a foreign land and established it on a sound footing.

Babu PRAN NATH DUTTA, son of the *late* Loke Nath Dutta, of the Hathkola Dutta family of Calcutta. Born in the year 1850. He received his preliminary education at the Oriental Seminary, in those days one of the best schools in Calcutta. He subsequently attended the Hindu College for more advanced studies as a scholarship holder. Here he attracted the attention of the professors as a youth of promise. As an outcome of the esteem in which his attainments were held, the young Pran Nath was selected by the Principal of the College when requested by the Government to recommend a student competent for the post of Interpreter to the Original side of the Calcutta High Court. He was, however, precluded from accepting the post as it did not meet the wishes of his father. In those days English education was looked on with suspicion by orthodox Hindus, and Pran Nath had to leave College by his father's orders. He applied himself to the study of Sanskrit, Persian and the Indian vernaculars. At this time he became a frequent contributor to the leading vernacular journals—the Bibidhartha Sangraha, the Raharshya Sandarva and others. The

late Dr. Rajendra Lal Mitra formerly Editor of these journals afterwards transferred the Editorship to Babu Pran Nath. At the death of his father Babu Pran Nath decided to start business as a Merchant, and gained experience in the office of the *late* Babu Peary Chand Mitter. Later he established a firm under the style of Messrs. Pran Nath Dutt Chowdhury & Co., for the purpose of shipping country produce to Europe. He subsequently added a printing press known as the "Suchara Press," an iron foundry at Sulkea, and a silk mart in Radha Bazar, to his other concerns. Babu Pran Nath took a leading part in the movement which transferred the



The *late* PRAN NATH DUTT.

management of the Municipal affairs of Calcutta from the Justices of the Peace to elected Commissioners, during the administration of Sir Richard Temple. He was among the first elected and served on the Corporation till his death. He was also an active member of the British Indian Association, and of the Indian Union, and interested himself greatly in the promotion of technical education. His business affairs, however, did not prevent his continuing his interest in journalism, and he ventured on a new line in Indian journalism by establishing the "Indian Punch," "Basantaka," by name, a comic paper, which met with great appreciation from the educated

classes of the day. It shortly attained a very large circulation. He also gave his attention to more serious literature, and was the first to publish Sanskrit works with introductions in English, for the benefit of the English educated classes. Having met with losses in business Babu Pran Nath removed from Hathkola to live in the northern suburbs of Calcutta. His son Kripanath's health failing, this course was recommended by his medical advisers. Here he again interested himself in public affairs and successfully, with the aid of the Mill and Factory people, opposed the attempt to incorporate Cossipore and Chitpore in the Calcutta Municipality, and obtained the formation of a separate Corporation for these areas. In 1888, Babu Pran Nath breathed his last after a brief illness. He left two sons Kripanath and Taranath, the latter born in 1865. They were both educated at the Oriental Seminary. Both of these gentlemen have followed in their father's footsteps. Babu Taranath was Chairman of the Cossipore-Chitpore Municipality from 1904 to 1907, and Babu Kripanath is the present

to the Brahmins. A descendant, Govinda Saran Dutta, founded Govindapur, on rent-free land granted him by the Mogul Emperor. The site was subsequently made



MR. TARANATH DUTTA.

over to the English by Ram Chandar in exchange for Hathkola, and upon it Fort William was erected. Ram Chandar and his son Madan Mohun were both banians to the East India Company. Madan Mohun erected many temples at Benares, Calcutta and elsewhere. He also erected the great staircase leading to the Pretsila hill in Gaya. His descendant Joget Ram Dutta was Dewan to Vansittart and accompanied him during his settlement of Midnapore, Cuttack and Behar. He built many temples in those parts. His son Hur Sunder Dutta was the first Dewan of the Government Stamps Office.

Messrs. DYMES & Co., Ltd., Merchants, Madras. This firm was founded in the early fifties by Mr. Daniel D. Dymes who retired from the business in 1870. They were the pioneers of cotton pressing in the Madras Presidency. On the opening of the North-West line of railway, Dymes & Co. established Factories at Adoni, Raichore, Bellary and Prodatoor. Since that time the firm have opened Agencies at

Guntoor, Coconada, Bimlipatar, Pondicherry, Cuddalore, Satu Virdupati and Tuticorin. In the year 1904 the firm was reconstructed and converted into a limited liability Company of which the present Directors are H. Scott, A. H. Deane, G. W. Mitchell and R. Hunter.

Mr. AUGUSTUS HENR DEANE, V.D., A.D.C., (*Lieut.-Colonel (Hon. Colonel), Madras Volunteer Guards*), son of Revd. Barry O'Mear Deane, late Chaplain, Madras Ecclesiastical Department, was born at Geneva, Switzerland, in the year 1851, and came to Madras in 1866 to join the firm of Dymes & Co with whom he has remained ever since. Colonel Deane was one of the seven Volunteer officers selected in India to proceed home with the Indian Contingent which attended the Coronation of King Edward VII and he filled the duty of Paymaster to the Volunteer Contingent. For his services on this occasion he was specially mentioned in Army Orders. In 1905 His Excellency the Viceroy paid Colonel Deane and through him the regiment of



MR. KRIPANATH DUTTA.

Chairman, holding the office for the second time. The family has a distinguished record. Its founder was Purusuttom Dutta, who rendered himself conspicuous by declining to acknowledge servitude



LT.-COL. A. H. DEANE.

Madras Volunteer Guards, distinguished honour by placing him on his personal staff as Honorary Aide-de-Camp. The services of Colonel Deane to the corps have been

invaluable. Joining from the old Godaveri Rifles in 1887, he has for the last 21 years devoted himself with uniform goodwill to the service of the M. V. G. He has deeply interested himself in every question that touches the welfare of the corps, both in drill and equipment, and even more so in improving its discipline and efficiency. During the temporary absences of the Colonel he has more than once acted as Commandant. He has given great support to the C. O. as Second-in-Command, notably in the matter of the late acquisition of the valuable property in the Regimental Institute and the re-payment of the large loan of Rs. 45,000 by equated instalments. Colonel Deane adds to his other duties those of Consul for Belgium, and is also Chairman of the Madras Fire Insurance Agents Association.

hibition, 1907; Bombay Motor Show, 1908; and Franco-British Exhibition, London, 1908; and a Bronze Medal at the Paris Exhibition of 1900. He has introduced many innovations in Coach-building



MR. PESTONJEE B. PRESS

in Bombay, such as the Vis-a-Vis Victoria, the new open-side square-fronted Brougham, Char-a-Banc, or Luncheon or Shikar Car; rubber-tyring, cushion and pneumatic; ball-bearing axles, and his own

patent trace and shaft bolt, a self-acting contrivance for preventing carriage accidents. Mr. Press is a practical hand himself and to improve his knowledge has visited most of the leading Coach-building houses in Paris, Frankfort, London and elsewhere. Since the advent of Motor Cars he has established a new department of his business for repairs to machinery and the building of bodies and their appurtenances. This department is now in charge of his son, Mr. Rustom P. Press, who has received a sound training in motor engineering in England. The whole of the business of the firm is controlled by Mr. Press with his two brothers, Mr. Jehangir B. Press and Mr. Jivanji B. Press, and his two sons Mr. Rustom P. Press and Mr. Ardeshir P. Press.

Messrs. J. B. FORSTER & Company, English Pharmaceutical Chemists, South Parade, Bangalore. Established in the year 1890 by Mr. J. B. Forster. The firm carry on business as Dispensing Chemists and also in drugs both wholesale and retail. They have also an Analytical Department which receives the personal attention of Mr. Forster. They hold large stocks of patent medicines which they always keep fresh and up-to-date by frequent renewals, and in this line their business is equal to any in India.

They are also manufacturers of Carboline and Pineoline, carrying out these manufactures on their own premises. Their large stocks of drugs, chemicals, etc., are used to meet the demand from outside districts as well as in Bangalore.



THE FORT COACH FACTORY, BOMBAY.

proper, their business being very widely extended. They are duly qualified Dispensing Chemists. Messrs. Foster & Co. also possess a large Aerated and Mineral Water Factory from which they turn out



Mr. W. G. PADDOCK.

large quantities of Soda Water, etc., for the supply of Bangalore and the surrounding Districts. The present partners are Messrs. J. B. Forster, PH.C., and W. G. Paddock, A.P.S. Mr. James Beaty Forster,

PH.C., was born at Carlisle, England, and educated in the same city. He qualified himself as a Pharmaceutical Chemist in London. In the year 1887, he came to India to join Messrs. W. E. Smith & Co., Chemists, Madras. With this firm he served an agreement of three years at the expiry of which he started business on his own account at Bangalore. Mr. William George Paddock, A.P.S., partner with Mr. Forster in the above firm, was born at Winchester, England, in the year 1866 and educated at Winchester. He received his chemical training in London. In 1888, he came to India to join Messrs. W. E. Smith & Co., Chemists, Madras, as Assistant and Manager of their Town Branch. After serving with this firm for four years he joined Mr. Forster at Bangalore as partner in the business of Forster & Co.

Messrs. FOUCAR & COMPANY, Ltd., Rangoon and Moulmein, Timber Merchants, Commission Agents, and Proprietors of Saw Mills. This business was started at Moulmein in the year 1878 by the late Ferdinand Foucar. It was continued at Moulmein for some years, when Mr. Foucar removed to Rangoon and started the business in that city. Mr. Foucar died in 1899 and on his death the business was converted into a limited liability Company.



Timber Mill. Messrs. FOUCAR & CO., LD., RANGOON.

The Company own large, well-established Saw Mills at Moulmein and Rangoon, fitted with the latest mechanical appliances and machinery for sawing timber, of which they turn out a very large tonnage annually. They give employment to about 1,000 hands. They possess extensive Forest concessions in various parts of Burma. The Chief Managing Director of the Company is Mr. E. J. Foucar, and the other Managing Directors are Messrs. W. Danger, and Wm. Nuding.

Messrs. M. FUJII & Co., Importers of Japanese general curios, silks, etc., Tailors, Outfitters and Hairdressers, 283, Dalhousie Street, Rangoon. This business is now the property of Mr. Mahomed Abdul Kader, a Mahomedan gentleman who was born in 1835. Mr. Kader's father, Munshi Ahsan Ali, a Chittagong Mahomedan, went to Rangoon in the days before the Burmese War of 1885. He eventually settled at Rangoon where he is at present one of the richest contractors among his community. He is much esteemed for his charity and good works and is looked upon as an acknowledged leader by the Mussulman community. He is a large landed proprietor in Rangoon and Chittagong, and is the President and sole financing head of the purely native shipping line known as the Bengal Steam Navigation Co., lately established at Rangoon. He is well and favourably known to the European community, but, owing to his ignorance of the English language, he does not mix much in public affairs. His son, Mr. M. A. Kader, was first educated up to the Higher Standard in Arabic and Persian, and then went through a course of study in English at St. Paul's High School, Rangoon. Leaving school in 1900, he became an assistant in his father's business, working in this capacity for a year, after which he started in business for himself under the name and style of A. Ahsan Ali & Sons, General Merchants. At first his youth and inexperience told against him and it took him two years to gather experience of commercial affairs and establish himself firmly. At the expiry of this

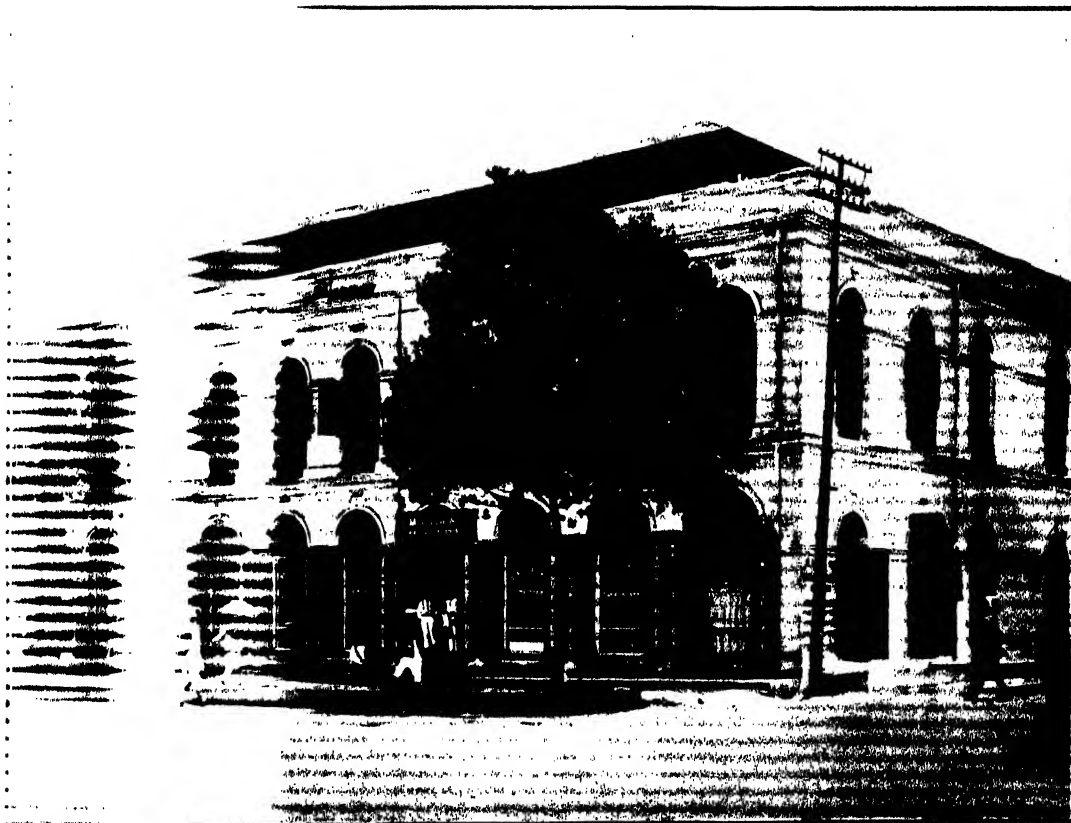
period he found himself in a much improved position and decided to extend his business by enlarging his accommodation. At the beginning he found it necessary to obtain his goods mostly through agents at Rangoon, but in 1903 he found himself in a position to utilise the commercial knowledge he had gained, by dealing direct with the manufacturers. In 1904 he became acquainted with Mr. Hill of Messrs. Hill and Hilton of England, whom he appointed as his home Agents, procuring all English goods for his business through them. At this time, finding his business growing rapidly, he intended to make further extensive additions, when he was led into contact with a Japanese merchant trading as M. Fujii & Co., who, owing to ill-health, was desirous of giving up his business and retiring to Japan. By an arrangement with this gentleman Mr. Kader purchased the name and goodwill of the business, and on April 1st, 1905, he took possession of the business, and since that time has been carrying on the business of a Japanese merchant, and has been successful in obtaining a large and increasing trade.

assistants who had worked under the previous proprietor. Mr. Kader has established himself and his firm very strongly in public favour by his good qualities and careful atten-



MR. MAHOMED ABDUL KADER.

tion to the wants of his customers, and his polite, genial and unassuming personality. He carries on his trade now chiefly in Japanese goods of the best quality, for obtaining which he depends mostly on his Manager, who is a born Japanese. Mr. Kader is well known throughout Burma under the name of Fujii & Co., which is considered by the Japanese who visit Rangoon to be the leading Japanese firm in the country. Japanese visitors invariably call on him for assistance and advice. There are branches of the firm at Kobe and Osaka, Japan. In 1904, Mr. Kader became a shareholder in the Shan States Trading Company, Ltd., and in the following year the Directors of that Company deputed him to visit Lashio, Hsiphaw and the other hill tracts in the Shan States to report on the working of their business. He was appointed Secretary of the Company on his return, and acted in this capacity for nearly a year and a half. In 1906 he was elected a Director of the Company. In addition to his other business connections, Mr. Kader is Vice-President



M. FUJII & CO., RANGOON.

of the Bengal Steam Navigation Company, Ltd., and upon his business abilities and advice, the Directors of that concern depend to a great extent. In 1906 he visited Singapore, on deputation for this Company, for the purchase on their behalf of a steamer, and in 1907 he again visited that port on behalf of the same Company, to settle certain intricate business matters then pending.

Messrs. FOUCAR & Co., Ltd., Moulmein, Burma, Foresters, Saw Mill Owners and Timber Merchants. Registered Office in London. The original firm of Messrs. Ferd. Foucar & Co., with Messrs. W. Caudery & Co., 1, Fenchurch Avenue, London, E. C., as Agents in Europe, was established in Moulmein in 1878 by the late Mr. Ferdinand Louis Foucar, who came out to Burma in the early sixties, and was joined in 1880 by his brother, Mr. Emile Joseph Foucar. In 1886 they opened a branch at Rangoon under the style of Foucar Brothers & Co. After Mr. Ferd. L. Foucar's death at Rangoon in 1899, the surviving partner converted the business into a limited liability company, with Mr. E. J. Foucar as senior Managing Director, and Mr. C. Wightman, senior partner of Messrs. W. Caudery & Co., as Chairman of the Company's Board of Directors in London. The Company more particularly deals in timber, but is also prepared to exploit and develop other resources and products of Burma. It has forest concessions in various parts of Burma and also draws supplies of timber from the Shan States and Karennee, all of this work being under the supervision of European assistants, with a large number of elephants for the handling of the logs. With few exceptions, the timber is floated down the rivers and brought in rafts to the mills at Moulmein and Rangoon, whence, after conversion, it finds its way not only to India but to pretty well all parts of the world, this latter more particularly applying to teak. The Company deals in all marketable woods produced in Burma, has up to date mills at Moulmein and Rangoon, thoroughly adapted to deal with these various woods, and at the mills for the moving of the log employs both mechanical and elephant power.

Mr. E. J. FOUCAR, who resides in Moulmein, was born in Germany in 1853, and is of Huguenot descent, his ancestors having settled in Germany soon after the Revocation of the Edict of Nantes. He was educated in Germany, where he had also his original mercantile training, went to England in 1877 to add to his experience, and from there, in 1880, joined his late brother, Mr. F. L. Foucar, and has been connected with the firm ever since. He is a naturalized British subject and has interested himself in local affairs, taking his fair share of "the white man's burden" in the country in which he has



Mr. E. J. FOUCAR.

settled. He is at present Major Commanding, Moulmein Volunteer Artillery, being one of the original members to start this Volunteer Corps in 1885, joining as a gunner, and he holds the Volunteer Long Service Medal. He is also a Municipal Commissioner, Honorary Magistrate, and Consul for Germany.

Mr. U OHN GHINE, A.T.M., C.I.E., M.R.S.A., M.R.A.S., is one of the most distinguished of contemporary Burmese gentlemen. He has been singled out for honour by the British Government in recognition of the eminent services which he has rendered both in his offi-

cial and unofficial capacities. To him belongs the distinction of being the first non-official gentleman in Burma to be created a Companion of the Order of the Indian Empire. He is the son of U Shway Moun and Mah Kho, his wife, was born in the year 1857 at Rangoon, and educated at St. John's College in the same city. After passing, with credit, his scholastic course, he obtained in April 1874 the appointment of fourth Master at the same institution. After a short experience, however, U Ohn Ghine found that he had no vocation for a scholastic career. He therefore resigned his appointment, and entered the service of the great Corporation known as the Bombay-Burma Trading Corporation, Limited, one of the largest firms of timber merchants in the world, with its head office at Bombay. He remained in the service of the Corporation for upwards of twenty-six years as an assistant, during which period he rendered excellent work. Owing to failing health U Ohn Ghine found himself unable to continue in active work, and retired in 1901. On retirement he was presented with a gold watch, handsomely engraved, together with a substantial bonus in recognition of his long and faithful services.

U Ohn Ghine was held in the highest esteem by the heads of the Bombay-Burma Trading Corporation, Limited. This is evidenced by the very many commendatory letters he holds. They were given to him from time to time by successive heads of the Corporation. He is also extremely popular with his fellow countrymen, from whom in token of their regard on the occasion of his appointment to a Companionship of the Indian Empire he received several congratulatory addresses, enclosed in silver caskets and bowls including the Burmese, Mahomedans, the Thamma Daitti Society, members of the Marks Memorial Fund and employees of the Bombay-Burma Trading Corporation, Limited, as well as from the Honorary Magistrates of Rangoon. The following extract from the address presented by the Honorary Magistrates sets forth the claims which U Ohn Ghine had established to the respect and

and in January 1900 the Companionship of the Indian Empire was conferred upon him by Her late Majesty Queen Victoria, Empress of India. U Ohn Ghine is a member of the Royal Society of Arts of Great Britain and Ireland, and of the Royal Asiatic Society. He was happily married in 1876 to Mah Yait by whom he has a family of eight children including five sons, two of whom are now being educated in England.

Messrs. GLADE & COMPANY, Merchants, Seedick Building, Hornby Road, Bombay. Established in 1881 by Messrs. D. H. Glade and G. K. Heinrichs. The latter gentle-



Mr. D. H. GLADE.

man dying in 1901 left Mr. Glade the sole proprietor of the business. The firm trades in cotton exports and represents Insurance Companies and other Agencies. They are Agents for the Peeroo Mahomed Oil Mill Co., Ltd., whose mill is situated in Byculia, where all kinds of oils for edible and lubricating purposes are pressed. The mill was started in 1887. The firm are also Agents for the North German Lloyd in Bremen, and are members of the Bombay Chamber of Commerce. Mr. D. H. Glade was born at Bremen in the German Empire in the year 1852, and educated at the same town. He came to Bombay in 1874 as Assistant in the firm of Knoop & Co. Mr. Glade took over the business in

1881, when it was closed down, and re-opened it in the above style.

He has been at various periods Chairman of the Bombay Cotton Trade Association, Ltd., Bombay Fire Insurance Association, and the Bombay Underwriters Association.

Messrs. GEORGE GORDON & Co., General Merchants, etc., Rangoon. This firm was established in the year 1893 by Mr. Geo. Gordon, the resident partner in the firm of Gladstone, Wyllie & Co., to take over and carry on the Rangoon business of the latter firm, which went into liquidation in that year owing to the retirement of Mr. Wyllie and Mr. Gladstone. The Burma house of Messrs. Gladstone, Wyllie & Co. was established in the year 1852 immediately after Rangoon was taken and annexed to the British dominions in India. They had previously been established at Calcutta since the year 1844 being an offshoot of the firm of Gladstone & Co. of Liverpool, a mercantile firm owning considerable property in sugar estates both in the West and East Indies. Previous to 1844 the estates of the firm in India had been entrusted to the Agency of Messrs. Gillanders, Arbuthnot & Co., the firm of Gladstone, Wyllie & Co., coming into existence in that year to take over the management as well as to carry on general mercantile business. The Calcutta house is still prosperously continuing its business and maintains a leading position in the capital. Messrs. George Gordon & Co. carry on much the same business at Rangoon that Messrs. Gladstone, Wyllie & Co. do at Calcutta. They are large importers of Manchester goods, and soft goods generally, and export the general produce of Burma. They are Agents for Lloyds, and they have a large connection for Fire, Marine and Life insurance business, acting as Agents for the Northern Assurance Co., Ltd., the Alliance Insurance Co., Ltd., the Sea Insurance Co., and the Standard Insurance Co. as well as for the Sun Life Assurance Co. of Canada. The partners in the firm are Mr. George Gordon, who now resides in England, and Mr. John A. Manyon, who manages the business at Rangoon. Mr. Gordon has been connected with Burma

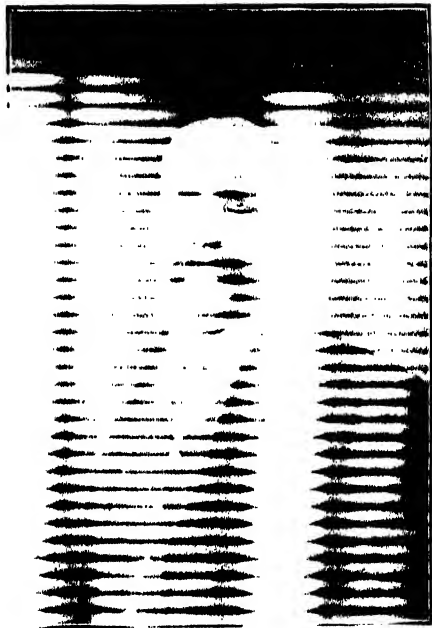
since the year 1880 and resided in the country for many years prior to his retirement home. Mr. Manyon is Swedish Consul for Burma. He joined the firm in 1898.

Mr. J. A. GOW (*Lieutenant Colonel, Commandant, Bangalore Rifle Volunteers*), has been a Volunteer since the year 1876, when he enlisted as a cadet at twelve years of age. In 1879 he joined the rank of the adult corps and served continuously till, in 1891, he received a commission as 2nd Lieutenant later on obtaining his Captaincy, and in 1906 attaining field rank as Major. In May 1908 he attained the rank of Lieutenant-Colonel. He received the V. D. decoration in 1896. He has served continuously at Bangalore except for a period when he was transferred to the Madras Volunteer Guards in 1896, serving with that Corps during his residence at Madras until 1901. In April 1909, on the recommendation of the Hon'ble the Resident in Mysore, Lt.-Col. Gow was appointed Commandant of the Bangalore Rifle Volunteers by the Government of India. He is also a Commissioner of the Civil and Military Municipality of Bangalore. Mr. Gow has also had a successful business career. For some years he was Manager for Messrs. Spencer and Co., Ltd., at Bangalore and later General Manager of the same firm at their Head Office at Madras. He is now Managing Director of Messrs. Gow, Ltd., a business which he opened on his own account in April 1907, and which later was converted into a Limited Liability Company, with a capital of Rs. 2,00,000. Messrs. Gow, Ltd., carry on a large business as Wine and General Merchants and General Agents at Bangalore, dealing in wines, spirits and groceries, manufacturing and supplying aerated waters. They are also contractors to the Army in a large way. Mr. Gow is a Mason of many years' standing, member of Lodge Bangalore, E. C. 1043, in the working of which he takes a very active interest.

Messrs. J. & F. GRAHAM & Co., Merchants, Strand Road, Rangoon, established in the year 1899. The firm is a branch of the Scottish firm of Wm. Graham which has its head office in Cathedral Street.

Glasgow They deal principally in piece-goods, general imports and exports, and general produce. They are Agents for the Hansa Line, the Glen Line, and Bucknall's Steam-er Line. Also Agents for the Brit-
ish American Insurance Company and Messrs. F. W. Heilgers & Co., of Calcutta. They have branches at Bombay, Calcutta and Karachi. The present partners at Rangoon are Messrs. C. F. Graham and H. E. Smith.

Messrs. GRANT AND CATHERWOOD, General Merchants, Phayre Street, Rangoon. This business dates from the year 1895 when it was established by Mr. Alexander Grant, who was shortly afterwards

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Houses. They do a large import business in butter from Australia. They have the Agency for the North-West Soap Company of Calcutta and Meerut; the Basel Mission Weaving Establishment of Calicut; and act as Agents for the Empire of India Life Assurance Co., of Bombay; the Angle Lamp Company of New York; the American Trading Company of the same city; Lepard and Smith, Ltd., Paper Merchants of London; Alfred Young & Co., Merchants, London; Power, Power & Co., London; N. Joachimson, Merchant, Hamburg; Harms and Marcus, Hamburg; and J. Jacobi & Co., Merchants, Vienna. Messrs. Grant and Catherwood carry a large stock of assorted goods. Mr. Alex. Grant has been a resident of Rangoon for over twenty years, during which period he has engaged in commercial pursuits. He is one of the Secretaries of the local Young Men's Christian Association and has been connected with the Methodist Episcopal Church for many years, of which church he is a Treasurer. He takes an active interest in Sunday School and all church work and societies.

Messrs. GUTMANN & CO., Merchants & Importers, 71-2, Hornby Road, Bombay. Partners, Ferdinand Gutmann, Julius Meyer, Jules Gutmann. The firm's business lies principally in silk piece-goods. They also import all kinds of continental piece-goods and sundries. They are represented on the Bombay Chamber of Commerce. The Head Office is at Lyons, France, and there are Branches at Delhi and Amritsar, and Agencies at Calcutta, Peshawar and Karachi. The business was originally started and carried on for about six years by Mr. Henri Gutmann, but was taken over by the present proprietors in 1907. Mr. Ferdinand Gutmann and Julius Meyer preside at the Head Office, Lyons, and Mr. Jules Gutmann at Bombay. Mr. Jules Gutmann was born at Hamburg in the German Empire in the year 1877 and educated at his native city. He also obtained there his first commercial experience, subsequently proceeding to Lyons in France joining Mr. Henri Gutmann. He resided in Switzerland and

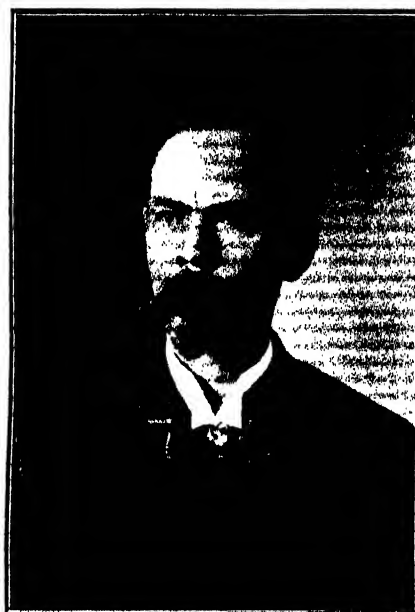
South America during several years. He came to India at the end of 1906 to take charge of the business at Bombay.

Messrs. HALL, PATERSON & Co., Moulmein, Agents for the British India Steam Navigation Co., Ltd., The Marine Insurance Co., Ltd., and The British and Foreign Marine Insurance Co. Ltd. The Agency was established about 1865, and Messrs. Gardener Brook & Co. were the first Agents. It passed from them to Mr Kennedy, and from him to Messrs. Hall, Paterson & Co., who are the present Agents.

Mr. JOHN A. HANNAY
Messrs. F. C. Hannay & Co., Ltd.
Rangoon. Born in the year
1845. Mr. Hannay is now nearly
63 years of age, and his connection
with Burma goes back far into the
days when Upper Burma was an
independent kingdom. He is the
son of the late Mr. Robert Hannay
who was well known in his day
as the pioneer merchant of Burma
and the first to import goods direct
from Europe to Burma. Mr. John
Hannay was at first intended for
the law, and served an apprenticeship
of three years in Scotland to
that profession. But his bent did
not lie in the direction of the long
robe, and he abandoned legal pur-
suits in favour of commerce, begin-
ning again by serving an apprenticeship
of four years in a London com-
mercial house. In the year 1867
he came out to Burma and joined
the Burma Company, Ltd., which
had been started in 1860 by a syn-
dicate of French and Swiss bankers.
At first Mr. Hannay was placed in
charge of the banking (Comptoir
d'Escompte's) department. Late-
on he took charge of the firm's
import branch. The firm embarked
in disastrous speculations in for-
est concessions, and three years
after Mr. Hannay's arrival, it was
found necessary to wind up its
affairs. Mr. Hannay now joined
the firm of Messrs. Gillanders
Arbuthnot & Co., at their Rangoon
Office and remained in that employ-
ment for the next five and-a-half
years. A couple of years after his
arrival Mr. Hannay began to take
an interest in journalism, and his
efforts in this direction entitle him

to the distinction of being the founder of the Burmese vernacular press. In 1869, finding that there was not a single vernacular newspaper in the Province, he induced the interpreter of the Burma Company, with which he was at the time associated, to start a vernacular paper, called the "Burma Herald." Mr. Hannay himself wrote the prospectus, the contents of which were translated into Burmese by the interpreter, who became the proprietor of the journal. The "Burma Herald," so established, is still in existence and running strong. The paper attracted the attention of the old King Mingdon of Upper Burma, the father of King Theebaw, as the first, and for several years the only, Burmese vernacular newspaper. King Mingdon was so favourably impressed with the publication, that he invited the nominal Editor to transfer himself and his newspaper to Mandalay. There were, however, objections to running a free newspaper under an absolute despotism, such as the Burmese Monarchy was at that time, and in the editorial reply, which Mr. Hannay published in reply to the royal invitation, while he thanked His Majesty for the same, he expressed his fears that a truth-speaking Editor at Mandalay would be pretty much in the position of a certain Persian vizier, who, when awaking, always felt his neck to make sure that his head was still on his shoulders. King Mingdon was not offended, but on the contrary greatly amused, and still looked favourably on the enterprise, for when some six months later, the interpreter, whose services meanwhile had been dispensed with by the Burma Company, went up to Mandalay to interview the King, he received a grant of Rs. 8,000 with which to buy a press and printing materials. This amount sufficed to start a press in Rangoon, at which it was possible to print not only the "Burma Herald" and publish it under the editorship of a Mandalay scholar, whose grammar and orthography were more in consonance with the language at the Court of Mandalay than the Judsonian Burmese which passes

current in Lower Burma, but also an English bi-weekly paper, the "Friend of Burma" which was started at that time. Mr. Hannay undertook the editing of the "Friend of Burma" in his spare time. The paper attained great success from the start. For a long time the connection of Mr. Hannay with the "Friend of Burma" was kept "sub rosa." He secured the services of many contributors of light and leading who wrote anonymously. This journal attained a considerable reputation, and by its squibs and satires on social matters, kept the Rangoon public amused. Mr. Hannay can boast of being one



MR. JOHN A. HANNAY

of the few men who ever refused a King's gift, a gold cup, which was offered him in recognition of an article written by him in the "Friend," enjoining moderation and a pacific settlement of the dispute on account of which Sir Douglas Forsyth was then on his way as a special envoy to the Court of Burma. Mr. Hannay was later compelled to resign the editorship, owing to pressure of work in his office, complicated by mismanagement on the part of those responsible for the press. For the next year and-a-half he was absorbed in mercantile office duties which were rendered trebly onerous by the failing health of

those above him, and he accordingly left commerce to enter seriously into journalism as a profession, by accepting charge of the "Rangoon Gazette." This was in the year 1874. The "Rangoon Gazette" was at that time a bi-weekly publication, but after three years under Mr. Hannay's editorship, it was converted into a daily. The prestige of the "Gazette" as a leading Indian paper was amply vindicated during the Burmese War of 1885-86, when its splendid organisation of war and special correspondence during the campaign in Upper Burma enabled Mr. Hannay not only to supply Burma, but also the English Press, through Reuter, and most of the leading Indian dailies as well, with all the war news. After 15 years of journalism, Mr. Hannay decided to retire from the exercise of this profession and sold his half-share in the "Rangoon Gazette," once more embarking on a commercial career. He first traded under the name of J. A. Hannay & Co., the style of the firm being subsequently altered to F. C. Hannay & Co. In 1903 the latter firm was converted into a limited liability Company. The Company hold the Agencies for the Palatine Insurance Company, the National Insurance Company of Ireland, L'Union of Paris, and the Guarantee Association of Bombay. Mr. Hannay is the Managing Director of the Company, and also holds the appointment of Branch Secretary for Burma to that flourishing concern, the Oriental Government Security Life Assurance Co., Ltd. This appointment was bestowed upon him in recognition of his having successfully represented them for 30 years. Although he has given up journalism as a profession, Mr. Hannay still occasionally finds diversion and amusement by contributing to home and Burma papers in his leisure moments. Mr. Hannay has all his life been a great believer in personal work as the prime element of success in any undertaking, and his belief has been carried into practice in his own career.

Messrs. JOSEPH HEAP & Sons, Ltd., Rice Millers and Merchants, Phayre Street, Rangoon, Burma. This was originally a private firm conducted under the

style of James R. Heap & Co., but in the year 1900 it was amalgamated with the old established firm of Joseph Heap & Sons of Liverpool, who had been doing business with Burma from before the seventies in the last century. In the early days of their business Messrs. Joseph Heap & Sons conducted a line of sailing ships, well known throughout the world as the "Mersey" Line. The Company now own two rice mills at Rangoon, of modern construction, equipped with up-to-date machinery and appliances. The mills are fitted to turn out both cargo rice and cleaned rice, for the local and European markets. Mr. A. P. Cotterell is the local Manager; the head office is situated at Liverpool, where also the Company possess rice mills.

HONGKONG AND SHANGHAI BANKING CORPORATION, RANGOON.

Capital ..	.. \$15,000,000
Reserve Liability of Proprietors ..	.. \$15,000,000

RESERVE FUNDS.

Sterling ..	.. £1,500,000
Silver ..	.. \$13,500,000
Head Office and Court of Directors }	HONGKONG.

London Office:—

31, Lombard Street, E.C.

The Bank has Branches and Agencies at all the chief centres in the world.

Every description of finance and exchange banking transacted.

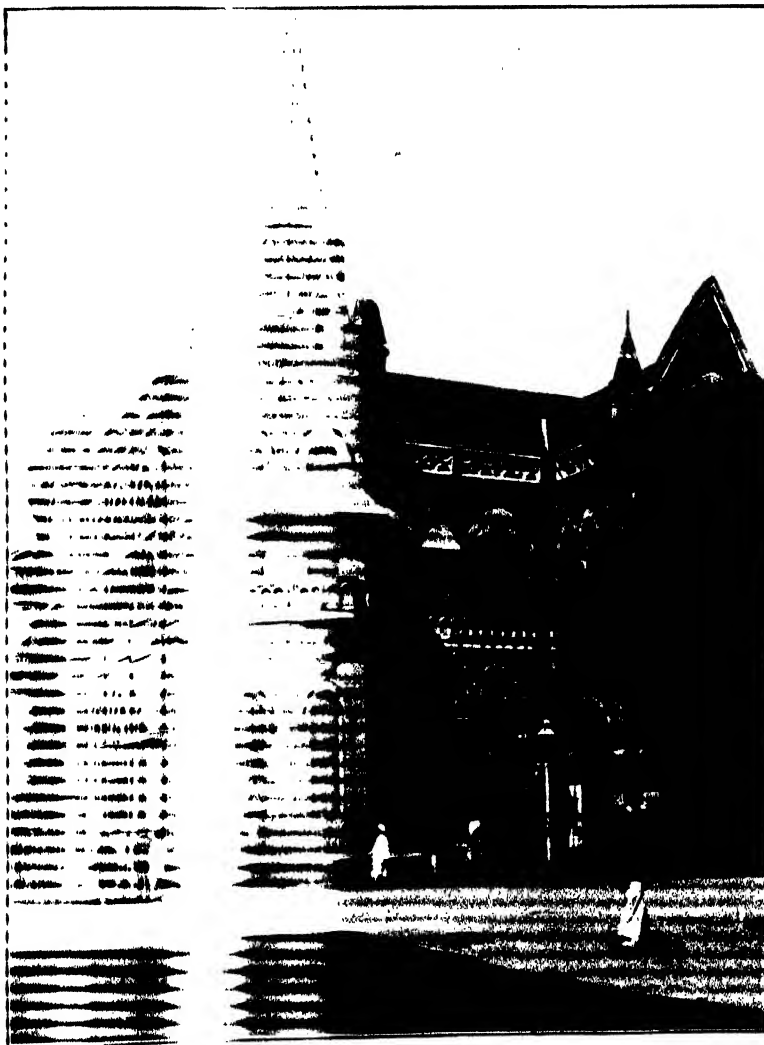
RANGOON OFFICE:—

19, Merchant Street, RANGOON.

Messrs. INCELL & SILK, Bentinck Street, Calcutta. This firm was established in 1890 by its present founders, Mr. T. Incell and Mr. T. T. H. Silk. Eighteen years have now elapsed and



Mr. W. SILK.



HONGKONG AND SHANGHAI BANK, RANGOON.

the business is doing well, and increasing by leaps and bounds. Mr. Incell has been a resident of Calcutta about 40 years and is still working and enjoying the best of health; he is a specimen of the old English type and his vigour and health speak well for the Indian climate which he has not left since he arrived 40 years ago.

Mr. Silk, of whom we produce a photograph, is the principal promoter of the firm and assisted in its foundation 18 years ago; after strenuous efforts he has succeeded, with the help of Mr. Incell, in placing the business upon its present sound and substantial basis; he has now 25 years of Indian experience, and commands great confidence from all his patrons and employees. The firm employs about 500 workmen, supervised by many European and Bengalee assistants, who have been of great help and assistance to the management. They undertake all classes of work in the common metals, such as iron, steel, lead, copper and brass; are Engineers and Contractors, and Specialists in Sanitary Engineering.

Plumbing and Gas Work including Acetylene; Iron and Brassfounders. Copper and Tinsmiths; and have made a speciality of Aseptic Hospital Furniture and appliances for hospitals and operation purposes. They are also the sole manufacturers of the Race Starting Machines which are used in Calcutta, and on all the race-courses in India.

The **BANK OF INDIA, Ltd.**, Bombay, was registered in Bombay on September 7th, 1906, with a Capital of one crore of Rupees divided into one lakh of shares of Rs. 100 each. The present paid-up Capital is fifty lakhs. The present Directors are Sir Sassoon David, Kt., Sir Cowasjee Jehangir Bart., Dorabji Jamsetji Tata, Esq., Gordhandas Khattau, Esq., Lalubhai Samaldas, Esq., Khetsey Khalsey, Esq., Ramnarain Hurnundrai, Esq., Jenarrayen Hindoomul Dani, Esq., Hon'ble Mr. Ibrahim Rahimtoola, C.I.E.

Mr. H. P. Stringfellow, late of the Alliance Bank of Simla Ltd., was appointed Manager in December 1906. The progress made during the two years in which the Bank has been working has been very rapid; the Working Capital standing at Rs. 2,17,57,914 on 31st December 1908.

Dividends at the rate of 5% and 5½% have been paid for the last two years respectively, and a Reserve Fund accumulated of Rs. 1,75,000.

The Bank has been started on lines very similar to those of the Presidency Banks with regard to the nature of the business that may be transacted; and the policy of the Directors is to be satisfied with a moderate rate of dividend until the Reserve Fund has reached a substantial figure.

For the present, the paid-up Capital of fifty lakhs, together with the additional sum of fifty lakhs subscribed but not called up, afford very ample security to the depositors in the Bank.

Mr. **HENRY PARKER STRINGFELLOW** was born in 1862 at Folkestone, Kent. In 1882 he joined the Head Office of the London and County Banking Co., Ltd., in Lombard Street, London,

and, after serving there for eight years, was offered an appointment in the Alliance Bank of Simla, Ltd., which he joined on January, 1st, 1890.

After serving as Agent of various Branches of the Alliance Bank, including the Calcutta



MR. H. P. STRINGFELLOW.

Branch, he was deputed, early in 1903, to open a Branch of the Bank at Bombay. In December 1906, on his return from leave during which he made a voyage round the world, reaching San Francisco only a few days after its destruction, he was offered, and accepted, the post of Manager of the Bank of India, Ltd., Bombay, which had just been started.

Under his charge the Bank of India has made very rapid progress.

Mr. Stringfellow, during his service in London, obtained, by examination, the certificate of the Institute of Bankers, and is an associate of that body. He also, on two occasions, gained a high place in the examinations held in connection with the Gilbert Lectures on Banking. He is the author of a work on Indian Banking Practice, published in 1897. Mr. Stringfellow married in 1892 Dorothy, daughter of the late Revd. H. W. Heaven, M.A., Vicar of Netheravon, Wiltshire.

The **INDIAN ALUMINIUM Co., Ltd.**, Madras. Founded in March 1900, for the manufacture of all classes of Aluminium goods. Capital, ten lakhs of rupees. The Managing Director is Mr. Ernest John Hawkins, who, together with Mr. Bernard Hawkins and Mr. Eardley Norton, the well-known Barrister, now practising in Calcutta, founded the Company; the other Directors being Mr. M. A. Khuddus Badsha Sahib, Mr. Francis Chatterton and Mr. Henry Brightwell. The capital of ten lakhs of rupees is divided into 10,000 shares of Rs. 100 each, there are no debentures, and since the formation of the Company an average dividend of 7 per cent. per annum has been paid. The Managing Director, Mr. Hawkins, is sole Manager, and he is a good all-round business man, as well as a thoroughly practical man in this particular industry. He was born in Bedfordshire, England, but has resided in Madras for the past nine years.

The Company began their operations on a small scale, but in 1903 they purchased the Government



MR. E. J. HAWKINS.

Aluminium Department of the Madras School of Art for two and-a-half lakhs of rupees, and in the same year the extensive buildings in which the Company now carry on their operations were erected. They have all the most modern machinery

and large drawing presses, with a first class engineer in charge. New and additional machinery of the value of Rs. 50,000 was put up in 1908, and this is driven by a 40 horse-power gas engine. They also have a large foundry, fitted with the latest machinery, and here are manufactured all the articles of brassware, iron, etc., used in the Aluminium Works, such as dies and stamps. The works cover an area of about four acres, and there is ample accommodation for everything constituting a self-contained industry, with facilities for carrying the large amount of stock which is daily kept on hand. About 100

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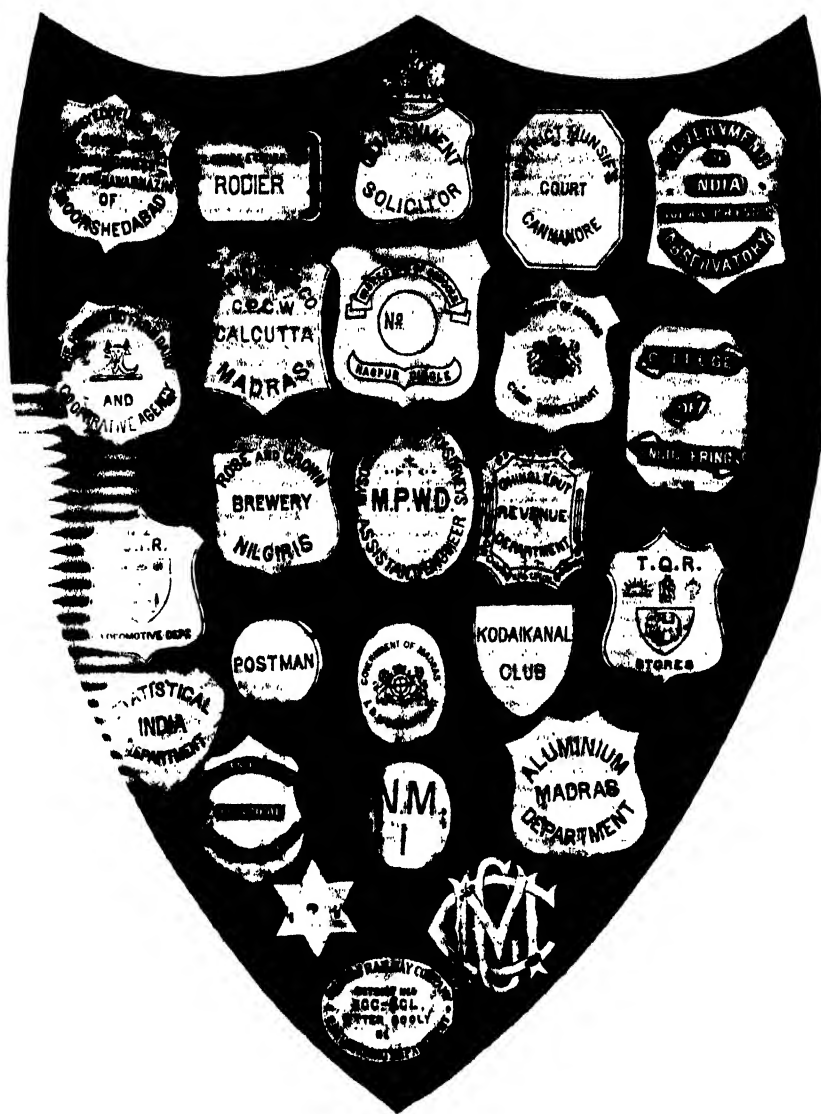
teries have been equipped. This, apart from domestic demands, affords evidence of the various uses to which aluminium can be successfully applied. Among British troops the use of aluminium is rapidly extending for all articles of domestic use, and the reduction in the weight of the cooking utensils of a regiment may be taken at fifty per cent., or even

able for other duties. So long as brass and copper vessels were used in Native regiments, the equipment was obtained from the bazaar, and Commanding Officers had usually to design their own sets. The concentration of all the aluminium business in Madras has led to the accumulation of much experience in these matters, and there is no doubt that

the sets of aluminum vessels now made up are more compact and much better adapted to service requirements than those they have replaced.

Probably the most important field for the employment of aluminium discovered during the last few years is in the manufacture of municipal conservancy appliances. Nightsoil has no action whatever upon aluminium, consequently it can be used in place of iron with great advantage. In the first instance the cost of aluminium appliances is greater, but they are easily kept clean by flushing with water only, while their durability is so great that they have been found when working side by side with iron appliances to be perfectly uninjured, while the latter have been worn out and unserviceable. Moreover,

the lightness of aluminium is a great advantage in carts and buckets which have to be handled a great deal and transported over considerable distances. The standard pattern conservancy cart, the tank of which has a capacity of 600 lbs. water, can easily be drawn by one bullock, whereas an iron cart of the same



THE INDIAN ALUMINIUM Co., Ltd.

ment has
After having
invented it
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ground water
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more. What this means may be judged from the fact that while, before the introduction of aluminium, eight mules were allowed to each regiment, or one for each company, under the new conditions one mule can easily carry the cooking utensils for two companies, leaving four mules per regiment avail-

capacity requires two bullocks. In hill stations these advantages are still more apparent, and in course of time aluminium must replace iron entirely in many of the principal municipal hospital and jail requisites.

The Indian Aluminium Company, in addition to manufacturing every kind of aluminium requisite, either for household or more extended use, supplies the metal in bulk in sheets, circles, ingots or scrap or in small quantities by the pound. In this connexion it is worthy of note that while in Europe and America the greatest field for the employment of aluminium is in the iron and steel trades, more especially the latter, in India it is only in very small demand by iron foundries. And yet there is not the least doubt that its employment in small quantities would lead to a great improvement in the quality of the castings turned out, and to a considerable decrease in the percentage of wasters. As a rule the advantages of aluminium have not been obtained, because in most of the experiments that have been made in this country too large a quantity of the metal has been employed. If no more than half a pound to one and-a-half pounds of aluminium be added to each ton of metal in the ladle, the resulting castings will be greatly improved, while the expense involved will not be great. In engineers' workshops there is a large field for the employment of aluminium. Where many similar castings have to be made, it is admirably adapted for patterns, as they are light, easily machined, and sufficiently strong to withstand a considerable amount of rough usage. For bearings, it has proved quite as durable as brass, while for face plates of lathes, chucks, and an immense variety of cast-iron fittings to machine tools, the hard aluminium alloy possesses a great advantage over cast-iron, as its lightness enables these comparatively large pieces to be easily handled by one man. In small workshops or in places where access to a foundry is difficult, the employment of aluminium and its alloys is attended with economy, as small castings can be produced with the most primitive native appliances and with very little trouble. The saving of time in

many cases amply compensates for the greater cost of the metal.

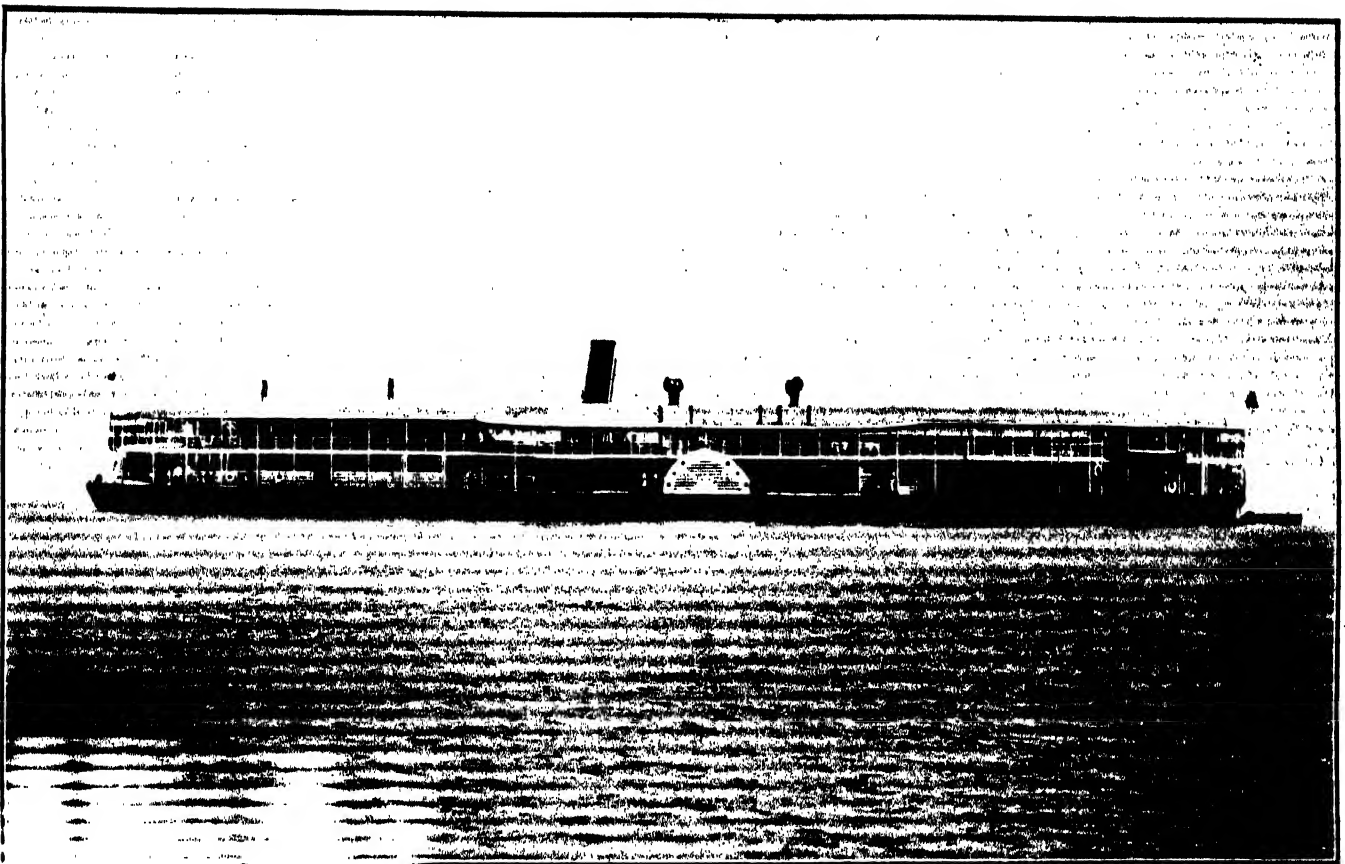
Among the specialities of the Aluminium Company, one of the most noticeable is the manufacture of hospital requisites, of which a great variety of articles in daily use is kept in stock, all manufactured to order. Bed-pans, inhalers, basins, measures, chatties, bathing necessities, filters and percolators, boilers of various patterns, spittoons, milk sterilizers, milk cans of varied design, and pans and dishes are among the useful articles which the Company stock. When the advantages possessed by the metal over those previously in use are taken into consideration, there is no cause to wonder why aluminium is rapidly displacing all other metals in the manufacture of articles in which cleanliness is the essential point to be kept in view, as in a hospital. The action of water, whether fresh or salt, is much less marked in the case of aluminium than most other metals. The dilute organic acids which occur in a great variety of food-stuffs have very little action on aluminium, and the compounds formed are absolutely harmless to the human system. These properties, together with the fact that aluminium completely resists the action of fire, renders the metal beyond all others best adapted as a material for use in the making of cooking vessels. Such substances as curds, lime-juice and tamarind water, which are largely in use among the people of this country, can be safely kept in aluminium without injury to the food-stuff or the metal. Aluminium does not corrode, and none of the acids found in foods have perceptible corrosive action on the metal.

The Indian Aluminium Company are to be congratulated on the very successful enterprise they have initiated in India, and the history of the Company from the issue of its first balance-sheet in 1900 shows progressive advance. The volume of business transacted, as set forth in the Annual Reports, shows satisfactory and consistent increase, while the capital and reserve fund have been added to, without interfering with the handsome dividends paid annually.

The INDIAN WAREHOUSE Company, Clearing and Forward-

ing Agents, Engineers, Suppliers, etc., Madras. Started in the year 1900, but is in reality the present representative of the old established firm of Messrs. F. H. Bowden & Co., which was established as far back as the year 1862 by Mr. F. H. Bowden. Mr. F. H. Bowden subsequently relinquished the business to Mr. F. M. Bowden, who conducted it till his death, which occurred some three years ago. A year later Mr. F. Howard Oakley amalgamated the business of Messrs. Bowden & Co., with that of the Indian Warehouse Company. He is the sole proprietor of the combined business. The Indian Warehouse Company represent leading English and American firms in Engineering Stores, Paints and Varnishes, in which they have considerable transactions. They are proprietors of Henry's Great Indian Remedies which have a large sale in the country as specifics against Indian diseases. These remedies are extensively used by mining and planting proprietors and others who have the care of large gangs of workmen and coolies. Mr. F. Howard Oakley is a public accountant, in which avocation he has practised for more than ten years. His Assistant Mr. F. Harold Bowden is a nephew of Mr. F. M. Bowden. Mr. Oakley is a native of Wolverhampton, England. He was educated at home and after leaving school joined his brother in London, a member of the firm of Messrs. Oakley and Wellam, Chartered Accountants. He served with this firm for four years. In the year 1900 he came to Bangalore, South India, where he practised his profession for a time. His firm the Indian Warehouse Company are largely engaged in clearing and forwarding business on behalf of merchants and others residing in the Mofussil.

The IRRAWADDY FLOTILLA Company, Limited, Steamship Owners, Shipbuilders, Marine Engineers, Dockyard Proprietors, etc., Rangoon. Established 1865, in which year the local Government of Burma made over a small fleet of steamers to the promoters of the Company. The operations of the Company were necessarily on a small scale at first, and three years later, in 1868, the Com-



IRRAWADDY FLOTILLA CO'S EXPRESS STEAMER "INDIA."



SCENE SHOWING ONE OF THE VESSELS OF THE IRRAWADDY FLOTILLA COMPANY, RANGOON.

pany's fleet contained no more than seven small vessels, with which trade was carried on within the limits of the Province of Lower Burma, the vessels plying principally between Rangoon and Thayetmyo, a distance of about 350 miles. There was no steam communication in those days with Mandalay, Bhamo and the towns of Upper Burma, such an enterprise not having been yet thought of. It was due to the able judgment of Mr. G. J. Swann, C.I.E., who took charge of the Company's affairs as Manager at Rangoon, that the possibilities of the situation were developed. To him is due the credit for the extension of the operations of the Company to Upper Burma, and under his skilful management and far-seeing sagacity, the service of steamers was extended, not only to Mandalay and Bhamo, but also to most of the navigable rivers, creeks and estuaries of Lower Burma. The operations of the Company were thus expanded fully a thousand miles, which is the distance of Bhamo, a town on the confines of Western China, by river from the sea. Communication, by an efficient service of suitable steamers, was also established between Rangoon and Bassein, the most important town and seaport on the Western mouth of the great river Irrawaddy. The fleet which had such small beginnings in 1868 rapidly increased, and now consists of 350 vessels, large and small, of an aggregate tonnage of 92,500 tons. At present the Company run a service of fast Mail and Cargo steamers, three times a week, between Rangoon and Mandalay, and a similar service, twice a week, between Mandalay and Bhamo. They have a large number of ferry services on the main river and its tributaries, and on the network of creeks in the delta, as well as on the Salween River and tributaries, providing ample facilities for the transport of passengers and merchandise from the interior to the seaports of Rangoon, Moulmein and Bassein. The steamers owned by the Company are of the most modern and improved type, are fitted with all the latest appliances in marine engineering, and are specially adapted for river navigation in a tropical climate. They have mostly

been built in the well-known ship-building yards of Messrs. William Denny and Brothers of Dumbarton on the Clyde. The late Mr. Peter Denny, LL.D., was for many years the Chairman of the Company in Glasgow. The Company maintain an extensive and well-equipped dockyard at Rangoon, and similar though smaller establishments at Moulmein and Mandalay. At the Rangoon Dockyards, in addition to general repairs to the Company's steamers and flats, vessels are constructed from materials imported from home. Besides their own work the Company do a large amount of work for the Government and general public. The express steamer *Japan* was specially fitted up for the reception of T. R. H. the Prince and Princess of Wales during their tour in Burma in 1906 by the Company. Their Royal Highnesses expressed very great appreciation of their three days' trip on the Irrawaddy on this steamer. The illustration given on previous page is of a sister vessel to the *Japan*. The Company has other difficulties to contend with besides the up-keep of their immense fleet. The river itself demands serious attention. In the rainy season the Irrawaddy rises thirty to forty feet above its dry season level, and during this season of flood the difficulties of navigation are reduced to a minimum; but towards the end of September the level of the river falls rapidly and continues to fall till in the hot season, March to April, it attains its lowest level. Very great difficulties arise, owing to the silting up of old channels and the divergence of others. The Company have to expend very large sums in keeping the channels clear for navigation by means of groynes and sunken disused vessels, to ensure a free passage for their steamers during the critical period of low river. Very extensive and expensive operations have also to be carried on in buoying the channels during the dry season, and the Company's pilot launches patrol the river throughout its entire length, shifting the buoys as the channels alter, and supplying information to the commanders of the steamers. In 1885, on the declaration of war by Lord Dufferin, Viceroy of India, against King Theebaw, the whole of the

Company's resources were placed at the disposal of Government for the conveyance of troops and stores to Upper Burma. The Company's aid was of infinite value, and the rapid success of the expedition was largely due to the skill and energy of the Company's representatives and the facilities afforded to the Government by the Company's resources. This was fully recognised by the Government of India, who acknowledged their obligation in a letter of thanks to the Company and created Mr. G. J. Swann, then General Manager in Glasgow, and Mr. F. C. Kennedy, Manager at Rangoon, Companions of the Order of the Indian Empire. Mr. Kennedy is now a Director of the Company; he was succeeded in the management in Burma by Mr. J. G. Findlay in 1895 who again was followed by J. P. Hay, M.V.O., in 1903. The present Manager of the Company in Burma is Mr. R. J. Wilkinson.

Hadji MAHOMMED YOUS-SOOF ISMAIL Sahib Effendi, K.I.H., Merchant, a Consul for Turkey, Rangoon, was born at Rander, Surat District, in the Bombay Presidency, in the year 1862. He came to Rangoon at the age of eleven and received his education at the Madrassah Mohammedia, Rander. Hadji Mahommed Youssoof Ismail's father was a wealthy merchant, and on leaving school at the age of twenty-one, Hadji Mahommed Youssoof joined his father in business. In the year 1896, the father retired from business and Hadji Mahommed Youssoof has carried on the business by himself ever since. In 1896, he also became a Director of the Surtie Bara Bazar Co., Ltd., and Bootataung Co., Ltd. He was actively employed in these Directorships until 1906 when he resigned. In the year 1900 he built a Rest House at Rangoon for all nationalities at a cost of Rs. 1,30,000. Lord Curzon honoured the undertaking by declaring it open on the occasion of his visit to Rangoon. Hadji Mahommed also built a Mahomedan Girls' School at a cost of about Rs. 50,000 and has supported many other charities in the course of which he has bestowed about three lakhs of rupees. In 1900, he was

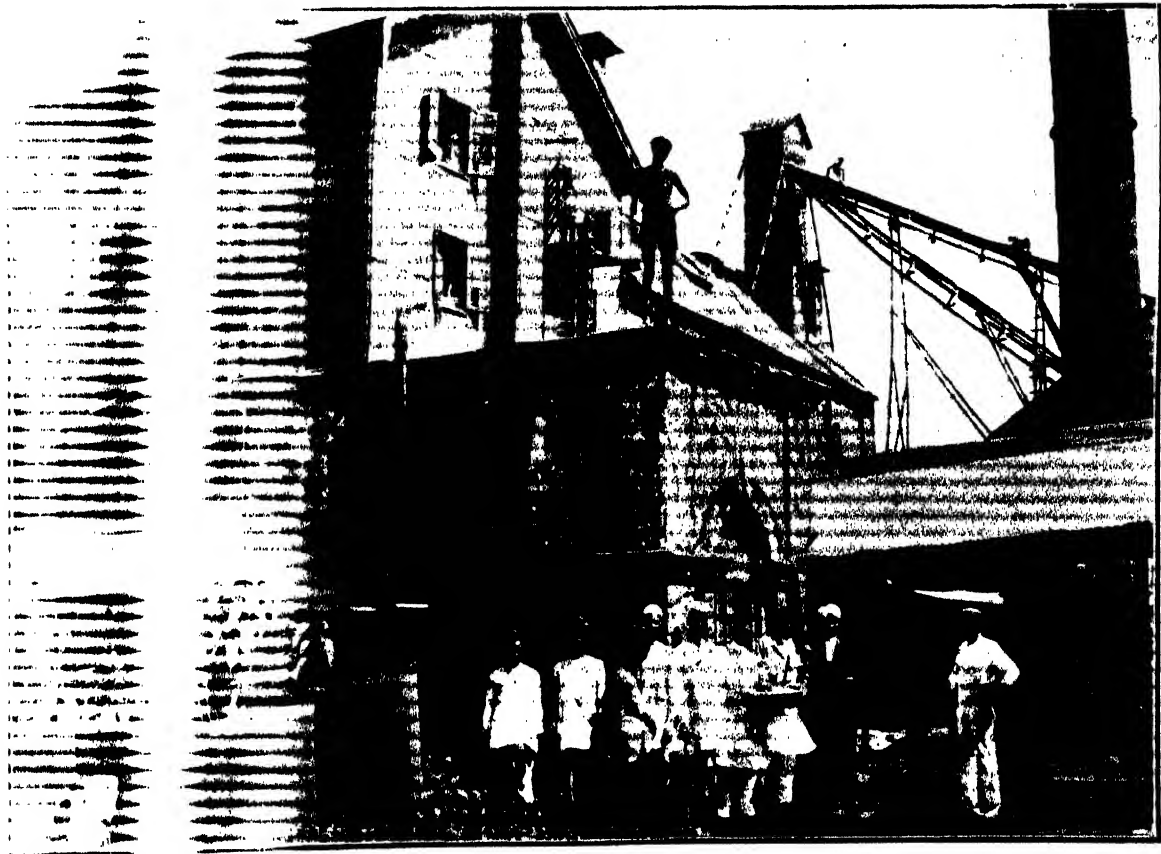
honoured with the Kaiser-i-Hind Medal by the British Government. In 1904, he was made Honorary Consul for Turkey and created a Commander of the Order of Imperial Medjedie by the Sultan.

Messrs. A. S. JAMAL Bros. & Co., Head Office, 26, Merchant Street, Rangoon, Rice Millers, Cotton Ginners, Oil Millers, Saw Millers, General Merchants, Bankers and Commission Agents. Rice Mills:—Upper and Middle Kemmendine. Oil Mills:—Rangoon, Myingyan and Allanmyo. Saw Mill:—Allanmyo. Burma Branches:—Mandalay, Yegyo Bazaar; Myingyan, Ginning Factory; Allanmyo, Ginning Factory; Mahlaing, Ginning Factory. India Branches:—Bombay, Katha Bazaar; and Calcutta, 23, Amratolla Lane. The business was established in the year 1868 by the late Mr. Abdul Shakoor Jamal. The firm are proprietors of Cotton Mills, Cotton Ginners, Oil Seed Crushers, and Oil Mills. They possess Rice Mills situated

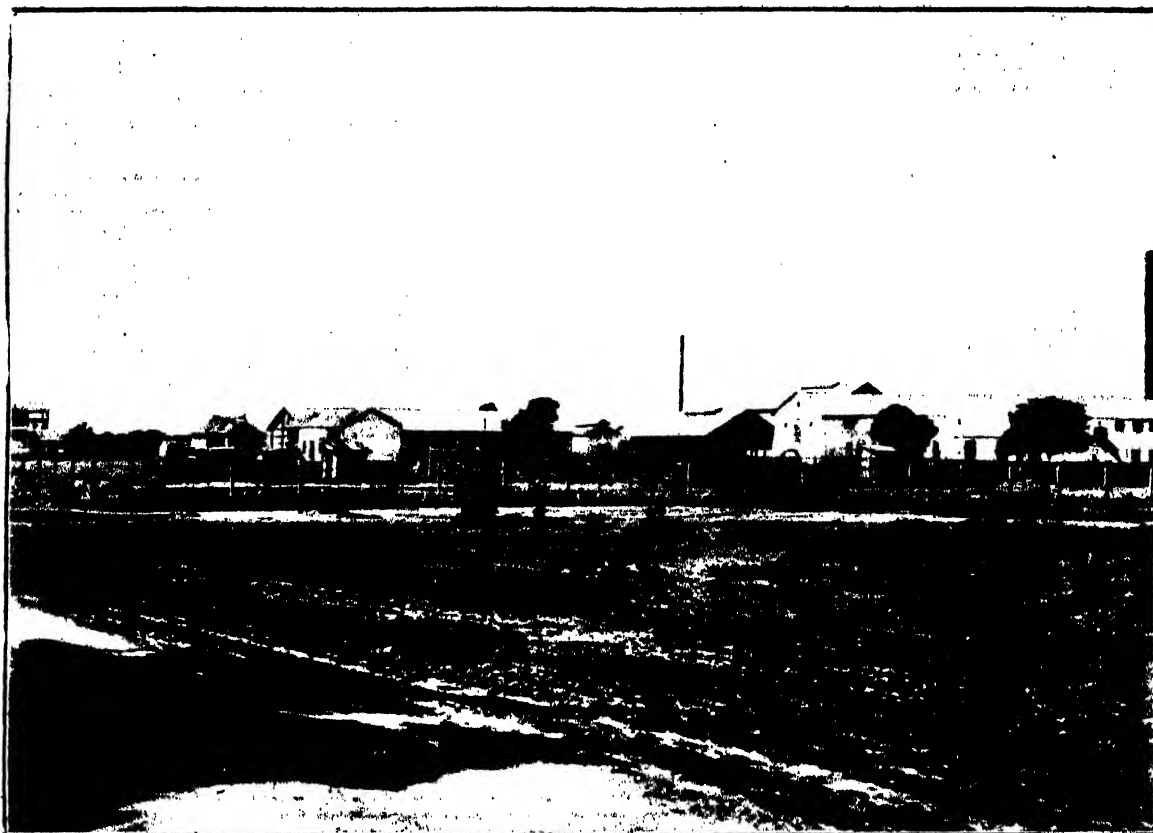
ducing and refining. The firm possess two Cotton Mills which were first started in the year 1897, one at Myingyan and the other at Allanmyo. These mills perform the operation of ginning only, the cotton being exported to Europe. At first the Burma Cotton Industry was a very small affair, but it is now growing rapidly and has already reached the output of about 30,000 bales of 400lb. each per annum. In 1899 the firm started their Oil Seed crushing business, being the first in India and Burma to extract oil from cotton seed. They have since erected up-to-date plant, and also crush til seed and ground nut. Messrs. Jamal Bros. took up the business of mineral oil producers and refiners in 1904. In this they have met with such success that they are now erecting a new plant with refinery complete at Syriam, next to the Burma Oil Company's Works. Besides the above enterprises the firm carry on an extensive business as Exporters and Importers. They possess Rice Mills situated

at Kemmendine, erected on the banks of the river, where they put through about 100,000 tons annually. They also own an Oil Mill at Kemmendine, where they extract about 40 tons of oil per day. All the Mills, which are the property of Messrs. Jamal Bros., are substantially built, and equipped with the most modern machinery. The firm are the sole proprietors of the various enterprises which they carry on. The present partners are Messrs. A. K. A. S. Jamal (senior partner), M. A. S. Jamal and Z. A. S. Jamal.

Mr. ABDUL KARIM JAMAL, senior partner of the firm of Jamal Bros. and Co., of Rangoon, is the eldest son of the late Abdul Shakoor Jamal. He was born in 1862 in India and educated at the Rangoon College, having arrived in Burma as a child, with his parents. On growing to manhood, he joined his father's firm in which he gained his commercial and business training as a general merchant. He took charge of the



THE JAMAL MIDDLE RICE MILL, KEMMENDINE, RANGOON.

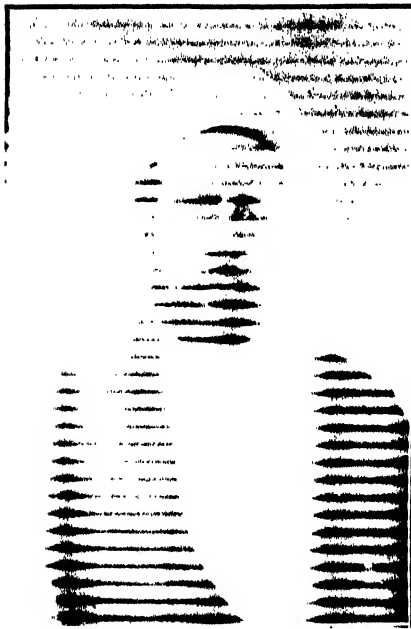


THE JAMAL COTTON AND OIL MILL, MYINGYAN.



THE JAMAL UPPER RICE MILL, KEMMENDINE, RANGOON.

business in piece-goods and silk in the year 1882, and on the retirement of his father in 1884, he took entire charge of the whole business. Mr. Abdul Shakoor Jamal died in 1888. His son, the present Abdul Karim Jamal, shortly added business in rice and paddy to the piece-goods business, and subsequently started the trade in cotton and vegetable oil, being the pioneer of this enterprise in Burma. He has since added the other concerns owned by the firm in the local districts, which have all met with distinct success, and have been instrumental in increasing the trade and population



SIR JEHANGIR.

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School and Elphinstone College at his native town. Sir Jehangir is a descendant of Heerjee Jehangir, the pioneer of the trade between India and China, and banker to the East India Company. The promptitude of his cash transactions was such as to earn for him the name "Ready-money," which was adopted and has been borne by the family ever since. A recent distinguished member of the family was the late Sir Cowasjee Jehangir, who was descended in a direct line from the founder of the family and was uncle (by adoption) of the present Sir Jehangir. To his public spirit is due the Bombay Eye Hospital, Government College and Senate House, the Surat Hospital, the Poona College of Science, and the Hyderabad (Sind) Lunatic Asylum. The present Sir Jehangir was Knighted in the year 1895 and last year on being made a Baronet, he assumed the name of Sir Cowasjee Jehangir. He is very prominently connected with the flourishing Bombay Mill Industry. He is Chairman of the Coorla, Jubilee, and Hope Mills, three of the largest concerns in the Western Presidency. In these he has invested a proportion of the large fortune he inherited from his uncle the late Sir Cowasjee. Sir Jehangir is also one of the largest landed proprietors in Bombay and the greater part of Malabar Hill, Bombay, is his property. He is a Fellow of the Bombay University, a Justice of the Peace, a delegate for the Parsee Matrimonial Court, and a member of the Committee of the Bombay Mill Owners' Association, a member of the Native General Dispensary (Bombay), and Chairman of the Cowasjee Jehangir's Girls' School (Bombay) and the High School for Boys at Gundavi, Guzerat. His residence at Bombay, "Ready-money House," is the scene of princely hospitality, and where he has had the honour of entertaining the highest in the land. His health necessitates frequent visits to England and at his London residence he is no less well-known to his English friends, and there he also offers a rallying point for the Parsee Community in England. He is happily married to a daughter of Ardesir Wadia, of Lowjee Castle, and

has a family of one son and two daughters. In all his projects he has the active support of Lady Jehangir. Sir Jehangir has always been noted for his public spirited liberality as was his uncle before him. The Jehangir Hall of the Imperial Institute was erected through his generous donation of two lakhs of rupees. His contribution to the Sir Cowasjee Jehangir Ophthalmic Hospital was Rs. 30,000; Prince of Wales' Museum, Rs. 50,000; Cama Hospital, Rs. 45,000; Mrs. Adams Wylie Hospital, Rs. 5,000; Examination Hall for the University of Bombay, Rs. 3,25,000; Science Laboratories for the Bombay Presidency.



SIR COWASJEE JEHANGIR.

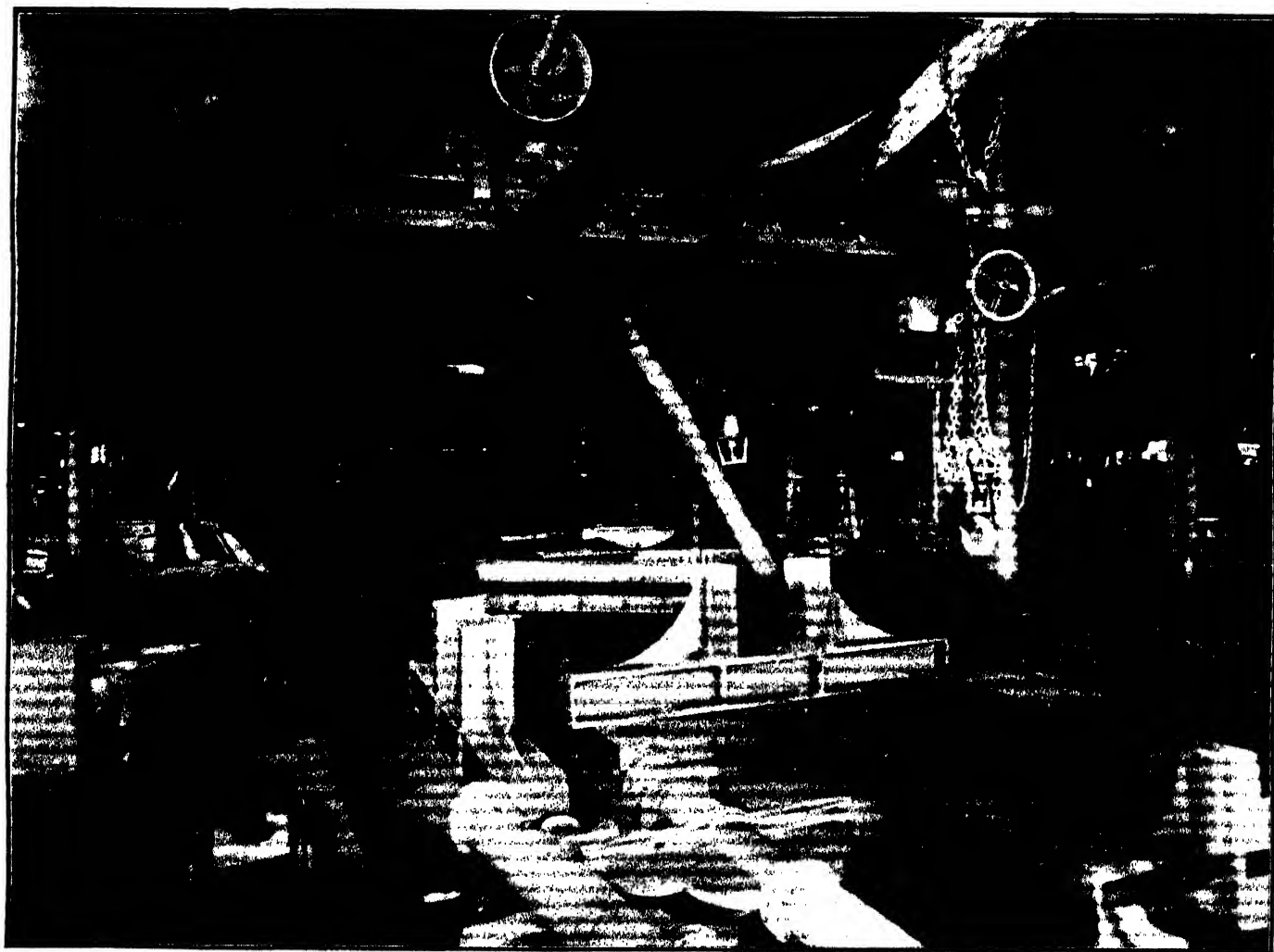
Rs. 4,00,000. In recognition of his services to the community he was created a Baronet by the King-Emperor on June 26, 1908.

Messrs. JAMASJEE AND MANECKJEE, Engineers and Contractors, Napier Foundry, 158, Foras Road, Byculla, Bombay. Established in the year 1888 by Messrs. Jamasji and Maneckjee. Both these gentlemen are since deceased. The firm's business as originally constituted included commerce, and dealings in all kinds of machinery. Messrs. Jamasjee and Maneckjee were the first firm who imported and stocked engines, boilers, etc., at Bombay, and Mr. Jamasjee was the

first Engineer in India to manufacture Hydraulic Cotton Baling presses, for which he obtained a considerable reputation. The firm has now improved upon its original manufacture in this line and by substituting steel for the top and bottom sills of their presses, have rendered them unbreakable and superior to the best English and American manufacture. The firm makes a speciality of Hydraulic Engineering. They also manufacture all descriptions of machinery, and cast at their foundry to the orders and patterns of the public. The output of the foundry is ten complete presses per year, and the demand for the work of the firm exceeds the supply. They supply various castings to the cotton mills, viz., Bombay United, Khatan Mukanji, Morarjee Gokuldas, Din-

shaw Petit, Framjee Petit, Maneckji Petit, Bomonjee Petit, Sassoon Spinning and Weaving Co., Ltd., Spring Mills, Empress Mills, Sir Currimbhoy Ebrahim and other Mills in Bombay. They have also contracts with the Bombay Mint and G. I. P. Railway. They work wrought and cast-iron, steel, and gun-metal. At their works some 500 hands are employed. Their godowns are at Prince's Dock where Engines, Boilers, Scales, Lathes, Donkey Pumps, and Mill requisites are stocked. Messrs. Jamasjee and Maneckjee represent Messrs. William Arnott & Co., of Coatbridge, near Glasgow, for Boilers, and Rice & Co., of Leeds, for Hydraulic Pumping Engines, Messrs. Brazil, Stokes & Co., of Bristol, for Steam Engines, compound and non-condensing. The Dudbridge Iron Works of

Stroud, Gloucestershire, for Oil Engines, and have several other agencies. The founders of the firm, Messrs. Jamasjee and Maneckjee, died in 1908 and 1902 respectively. Mr. Jamasjee left three sons, Maneckjee Jamasjee, Piroozshaw Jamasjee, and Rustomjee Jamasjee, who are all interested in the firm and are now serving their apprenticeship therein. The present senior partner is Mr. Dhunjishaw Merwanji who was born at Poona in the year 1872, and educated at St. Vincent's School in the same city, and served his apprenticeship to the engineering trade in Bombay. He served with various firms in different parts of India, as engineer, and ultimately joined Messrs. Jamasjee and Maneckjee as their agent, and represented them all over India. He then served the



INTERIOR OF MESSRS. JAMASJEE AND MANECKJEE'S NAPIER FOUNDRY, BOMBAY.

same firm at Bombay, on construction of Hydraulic Cotton Presses, and supervised the erection of their present Foundry at Foras Road, Byculia, Bombay. He was next appointed Chief Engineer and Manager to the firm, and generally superintended their business. He was admitted a partner in January, 1908, and became senior partner on the death of Mr Jamasjee on 8th September in that year.

JOINT STOCK COMPANIES IN THE PUNJAB. Of recent years great strides have been made in the establishment of limited companies and mutual benefit

concerns are Messrs. Basant Ram and Sons represented by Pandit Balak Ram Budya. They are also the Auditors of various other Indian and Government concerns in the Province of the Punjab, and United Provinces of Agra and Oudh.

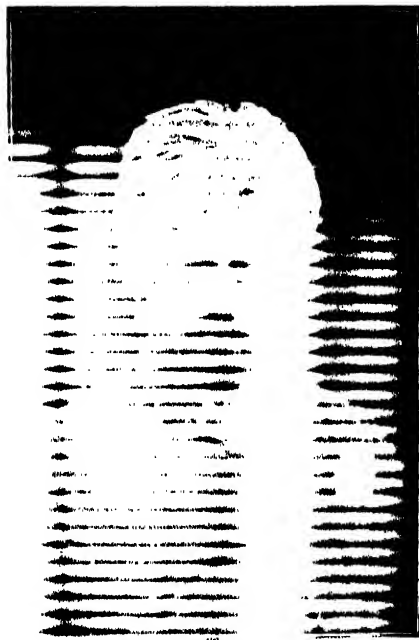
The **PUNJAB MUTUAL HINDU FAMILY RELIEF FUND**, Lahore. The Fund was originally started by certain benevolent employees of the North-Western Railway of whom the late Rai Sahib Labdha Ram Sahni, C.E., the first President of the Board of Directors, and Rai Sahib Bishan Das, the first Honorary Secretary and present President were the leading spirits. The Fund was established with the object of providing for the widows and orphans of deceased members, and the subscription to obtain these benefits was fixed at Re. 1 per month, with an additional subscription of Re. 1-8 per annum; the latter for the purpose of providing for the upkeep of the establishment and the payment of other charges. At the time that Mr. Harkishen Lal settled in Lahore the Fund had already been established. At an early opportunity he was elected as one of the Directors. He was subsequently made Vice-President and President of the Board of Directors. He re-organized the Fund upon business lines and obtained its conversion into a registered body. The Fund has been very useful. Its membership now amounts to 9,340 and the large sum of Rs. 8,14,516 has been distributed among the relations of deceased members up to end of the year 1907. Its operations have now been extended to some of the districts in the United Provinces.

All the Directors give their services on an honorary basis.

PUNJAB NATIONAL BANK, Ltd., Lahore. Established in the year 1895, with a capital of Rs. 2,00,000. Mr. Harkishen Lal was the first Honorary Secretary to the Board of Directors, but has since disassociated himself from the concern, his views on extension being too advanced for his co-workers. The Bank has prospered and its subscribed capital now stands at Rs. 10,00,000. Eleven

branches have been established and the working capital at end of 1907 was Rs. 67,51,079.

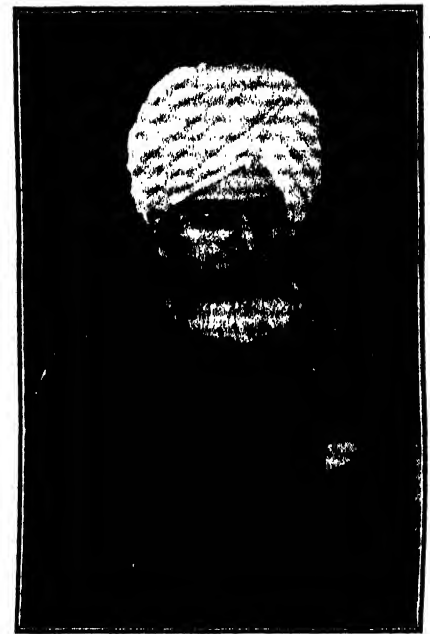
The **BHARAT INSURANCE COMPANY, Ltd.** In the year 1896, when this Company was started, the principles of insurance were quite new to the people of the Punjab. Mr. Harkishen Lal, the promoter of the enterprise, found from the beginning that he had set himself a difficult task in endeavouring to obtain support for the venture. It cost him a hard struggle and several months of work before he could even complete such preliminaries as registration.



Rai Sahib LABDHA RAM SAHNI

of the Punjab National Bank, Ltd., Lahore. He was the first Honorary Secretary to the Board of Directors, but has since disassociated himself from the concern, his views on extension being too advanced for his co-workers. The Bank has prospered and its subscribed capital now stands at Rs. 10,00,000. Eleven

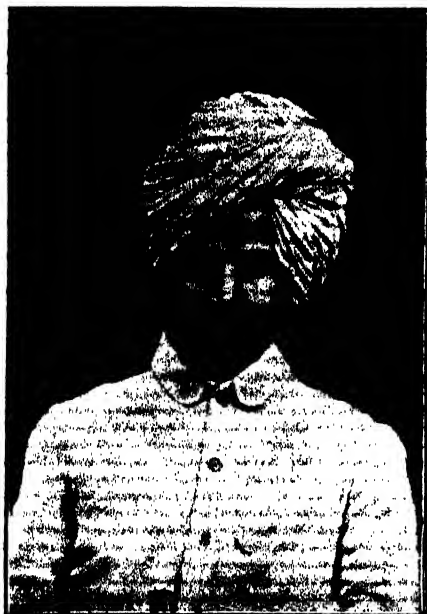
branches have been established and the working capital at end of 1907 was Rs. 67,51,079.



Rai Sahib LALA BISHAN DAS.

but in August 1896, he succeeded under many discouragements in starting the Company with a capital of Rs. 5,00,000. In the following years confidence was more assured, and it was in the year 1907 that the capital of the concern was raised to Rs. 10,00,000, which is fully subscribed. On its establishment the Bharat Insurance Company only undertook life business, but shortly afterwards its scope was extended to embrace Marriage and Education Tables for children, and Fidelity Annuity Tables were also introduced. After eleven years of existence, in the year 1907 the prospectus was revised and many improvements for the advance of

business were introduced. At this time were added, Tables for Double Endowment, Half Endowment, Term Endowment, and various tables



The late Mr. GYAN CHAND
(Manager and Actuary).

under whole term with respect to making payments. There were also added Endowment and Whole term combined, and Whole term and Annuity combined. Also Rupee Policies in which the monthly premium was one rupee, were introduced. A further addition was Ladies' Endowment. The business of the "Bharat" has grown to very large proportions and its vast organisation includes branches and chief agencies throughout India at Lahore, Rawal Pindi, Ajmere, Delhi, Lucknow, Nagpur, Ahmedabad, Bangalore, Calcutta and Bombay. At the end of 1907 the total funds of the "Bharat" amounted to Rs. 7,84,736 and at the same period its insurance of various descriptions totalled Rs. 55,98,699. There were 4,250 effective policy-holders. The first Manager and Actuary of the Company was the late Mr. Gyan Chand who was appointed Secretary in September 1898, from the Punjab Hindu Family Relief Fund, where he had been employed in the same capacity. Later on he was ap-

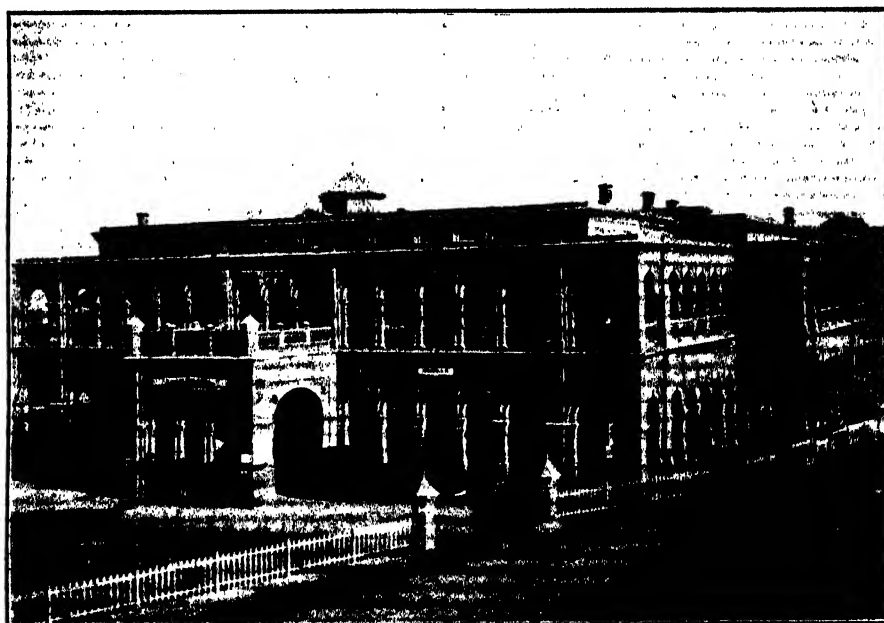
pointed Manager and Actuary, and this position he held till the time of his death which occurred in May, 1906. The services which Mr. Gyan Chand rendered to the "Bharat" were extremely valuable during the ten years during which he held office, and this fact was fully recognized by the shareholders who allowed his children a bonus of Rs. 1,000, besides a life Annuity of Rs. 15 per month to his widow. The next incumbent of the office of Manager and Actuary was Pandit Mohan Lal Tikku, but his term was short and he died in active duty, having however distinguished himself by his energy as a canvasser during his brief term. The Hon'ble Mr. Harkishen Lal is the Chairman of the Board of Directors of the Bharat Insurance Company. The other Directors are Rai Sahib Lala Bishan Das, Personal Assistant to the Manager of the North-Western Railway, Seth E. C. Jussawalla, Proprietor of the firm of Jamsetjee & Sons, Lala Balmokand of the firm of Messrs. Chota Lal, Lala Prabhu Dial, B.A., Pleader, Banker and Factory owner, and Sheikh Umar Bakhsh, B.A., Pleader, Punjab Chief Court. Mr. Lajpat Rai Sahni is the present Manager of the concern. The "Bharat Buildings," where the affairs of the "Bharat" are managed, are the Company's

own property. It is contemplated to make the posts of the employees pensionable to which end a small beginning has already been made.



Mr. LAJPAT RAI SAHNI.

The PUNJAB PUBLISHING AND STATIONERY COMPANY, Limited. Established in 1898 with a capital of Rs. 50,000 with the object of creating a healthy vernacular literature. It proved unfortunately the case, however, that there was found no public demand



BHARAT BUILDINGS, LAHORE.

for literature of this kind, and the promoters were obliged to abandon the idea and convert the business into a general stationery depôt to the various firms and public bodies. The Managing Director of this concern is Sheikh Umar Bakhsh.

The LAHORE SPINNING AND WEAVING MILLS COMPANY, Limited. This concern was organized in the year 1898 with Mr. Harkishen Lal as its Managing Director. The capital was placed at Rs. 10,00,000, out of which up to end of 1907, 7,17,750 was paid up. At the same period the working capital of the concern stood at Rs. 15,87,179. The Company carry on business in spinning and weaving, owning mills for the industry at Shahdara, some five miles out of Lahore, and two feeder ginning factories, one at Kasur and another at Ferozepur. This venture has proved successful and has paid a dividend of 10 per cent. The working capital has been increased to Rs. 15,87,179.

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have been provided against by the Directors who have extended the scope of their business and added a workshop at Shahdara, an Ice Factory at Lyallpur and another at Kasur, and an Oil Mill and a Flour Mill at Kasur as a stand-by. In most of above the same power is utilised as laid down for the cotton ginning factories. In addition, a large Flour Mill with complete plant at a cost of Rs. 4,50,000 was established at Shahdara near Lahore in the year 1906. These additions to its scope of operations will enable the Company to carry on a profitable business even in years when the cotton crop, its original sole dependence, is a failure. At the end of 1907 the working capital of the Company stood at Rs. 30,76,325.

PEOPLE'S BANK OF INDIA, Limited, Lahore. On severing his connection with the Punjab National Bank in 1907, Mr. Harkishen Lal started the above concern with a capital of Rs. 2,00,000, which has now been raised to Rs. 25,00,000. The Bank undertakes general Banking business but pays special attention to remittance business, and for this purpose has established branches and agencies generally throughout India, but more especially in the Punjab. The Bank had at first to overcome a determined opposition from those interested in the Punjab National Bank, but has successfully surmounted this difficulty. Its branches are established at Bannu, Bahawalpur, Bombay, Bazaz Hatta and Anarkali (Lahore), Cawnpur, Dera Gazi Khan, Dera Ismail Khan, Gujrat (Punjab), Gujranwala, Hafizabad, Hoshiarpore, Hyderabad (Sindh), Jullunder, Jammu, Jhang, Jhelum, Karachi, Kasur, Kohat, Larkana, Ludhiana, Lyallpur, Meerut, Mianwali, Montgomery, Multan City, Multan Cantonment, Muzafargarh, Patiala, Peshawar, Quetta City, Quetta Cantonment, Rawalpindi City, Saharanpur, Shikarpur, Sialkot City, Srinagar, Sukkur, Umballa City, Umballa Cantonment, Kapurthala, Sargodah, Khairpur Mir, Delhi, Calcutta, Muzafarnagar, Lucknow and

Ferozepur. The following gentlemen are Directors of the Company:—The Hon'ble Mr. Harkishen Lal, Bar-at-law, Lahore; Mr. Ganpat Rai, Bar-at-law, Lahore; Bhai Gurdit Singh, Rais and Jagirdar, Lahore; Sardar Dharam Singh, c.e., Gujranwala; Sheikh Umar Bakhsh, Pleader, Lahore; Rai Bahadur Lala Hari Chand, Multan; Rai Bahadur Srikishendas, Delhi; Lala Narain Das, Pleader, Dera Ismail Khan; Lala Anant Ram, Deputy Quarter-Master-General, Srinagar; Sardar Gajjan Singh, Pleader, Ludhiana; Rai Bahadur Lala Sham Das, Pleader, Hoshiarpore; Lala Tara Chand, Pleader, Lyallpur; Malik Hoshnak Rai, Pleader, Lyallpur; Lala Mool Chand, Pleader, Peshawar; Munshi Sadaruddin, Pleader, Peshawar; Raizada Ram Chand, Honorary Magistrate, Multan; and Bawa Parduman Singh, Pleader, Jullunder. The positions of Managing Director and General Manager are held by the Hon'ble Mr. Harkishen Lal and Lala Deokinand respectively. At the end of 1907 the working funds of the Company amounted to Rs. 61,20,000.

The KANHYA LAL HARNARAIN SINGH, Limited, Lahore. This concern was originally a private partnership carrying on business in the manufacture of bricks, and dealing in lime and other building materials and as general contractors. Its conversion into a limited Company was effected in 1903, the capital being Rs. 50,000 which subsequently increased to Rs. 1,00,000. Bhai Gurdit Singh, Lahore, is the Managing Director to the Company.

The AMRITSAR BANK, Limited, Lahore. This Bank was established in 1904 by Mr. Harkishen Lal as a second string to undertake business outside the scope of the People's Bank of India. Its capital was originally Rs. 2,00,000 but has now been raised to Rs. 5,00,000. The Head Office of the Bank was originally established at Amritsar in 1904, but two years later it was found more convenient to

transfer it to Lahore where it has since been situated. The Managing Director is Mr. Harkishen Lal, and Lala Anandi Parshad acts as General Manager. The working funds of the Bank amounted to Rs. 12,77,786 at end of 1907. It has branches and agencies at Gurdaspore, Batala, Amritsar, Taran Taran and Gurgaon.

The INDIAN NATIONAL TRUSTEE ASSOCIATION, Limited, Lahore. Registered in 1906 for the purpose of effecting trustee business as administrators and receivers to estates, guardians towards clients and charities, taking charge of investments and securities and duties of a cognate character. The capital has been placed at Rs. 5,00,000. Mr. Harkishen Lal is Honorary General Manager. The Honorary Directors are Rai Bahadur Lala Hari Chand, Pleader, Multan; Rai Bahadur Sardar Amrik Sing; Rai Sahib Lala Bishan Das, Personal Assistant to the Manager, N.-W. Railway; Lala Prabhu Dial, Pleader and Banker, Lahore; Sheikh Umar Bakhsh, Pleader, Lahore; and the Hon'ble Mr. Harkishen Lal.

The PIONEER INVESTMENT COMPANY, Limited, Lahore. Registered 1906. Capital Rs. 5,00,000. This new concern was started with the object of assisting dealings in shares, and its business consists in acting as advisers to investors, and also dealing with people whose operations are limited and who prefer safe investments.

Messrs. HARKISHEN LAL & COMPANY, Merchants, Agents and Contractors. This firm was established by Mr. Harkishen Lal for the purpose of giving him facilities for managing and looking after the multifarious concerns in which he is actively interested. Associated with Mr. Harkishen Lal, who is the chief partner, are Rai Sahib Lala Bishan Das, Sheikh Umar Bakhsh and Malik Girdhari Lal. The Head Office of the firm is at Lahore and the branches at Calcutta, Bombay and Karachi.

Mr. Harkishen Lal is also interested in the Pioneer Leather Works, Ltd., capital Rs. 2,50,000; the Pioneer Jewellery Company, Ltd.,

capital Rs. 2,50,000; Century Flour Mills Co., Ltd., capital Rs. 5,00,000; and the Golden Ginning and Press Co., Ltd., capital Rs. 1,00,000, which are in their infancy having only been started in 1908.

The COMMERCIAL ACADEMY, Lahore. This institution was established by Mr. Harkishen Lal in April 1905 to compass the following objects:—(a) to associate professionally for the purpose of improvement of knowledge and information those engaged in the management of joint stock and other concerns or who are otherwise following various professions in connection with trade and commerce; (b) the training and improvement of the knowledge of the employees and candidates for employment in joint stock and other concerns; (c) to promote the study in theory and practice of economics and economic questions, with special reference to India; (d) the organising and maintaining of a school, a library and a reading-room at Lahore of economics, trade, commerce and subsidiary related subjects; (e) devising means for testing the qualifications of candidates for employment in joint stock and other concerns and granting certificates of qualifications to successful candidates; (f) holding conferences and meetings; and (g) taking such further steps for the promulgation of these objects as may be deemed necessary and conducive. In connection with the Academy and for the purpose of furthering its objects, a monthly journal styled the "Commercial Academy Journal" was started in September 1906 and is regularly published. A library of books on commercial subjects has been got together. Mr. Harkishen Lal's scheme is however in advance of the times and as with other pioneers he has had to put up with disappointments. The school established to impart knowledge of commercial subjects has not found support from the public and it has had for the time being to be closed. Mr. Harkishen Lal, however, is not discouraged, and the institution, as time goes on, and the people have their eyes opened to the value of commercial and industrial education, may

be expected to effect the objects which its promoter has in view. Mr. Harkishen Lal is the Chairman of the Board of Governors of the Commercial Academy and Mr. Lala Lajpat Rai Sahni is associated with him as Honorary Secretary to the institution.

Messrs. KAHN & KAHN, Bombay, was founded in 1864 in Paris under the name of Messrs. Hermann & Kahn, which was changed in 1887 to that by which it is now known, Messrs. Kahn & Kahn. The Bombay Branch was opened in 1889 under the management of Mr. B. Schnabel who was succeeded in 1896 by Mr. O. St. Goar, the latter giving place in 1904 to Mr. Percy Clare. Besides the branches at Delhi and Amritsar another was opened at Calcutta in 1901 under the joint management of Messrs. Walter Lomax and Robert Bazley. A Branch also has been opened in Lyons (France) under the joint management of Messrs. J. Lehodey and Geo. E. Browne, and there are Agencies in London, St. Etienne, and Bâle.

The firm own the principal interest in Messrs. Kahn & Co., Ltd., Hamburg, of which concern Mr. O. St. Goar is the Managing Director.

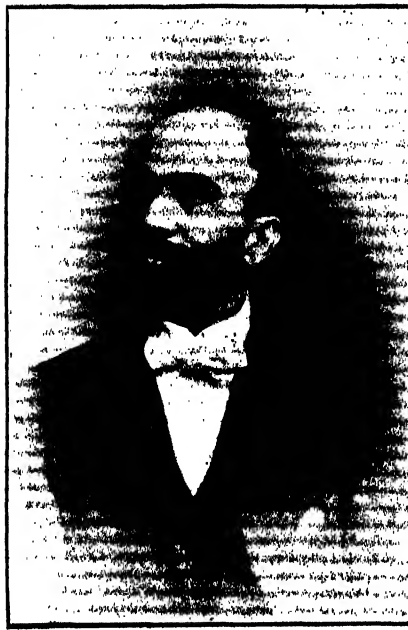
Besides their extensive export trade to India, China and Japan they import largely to the United Kingdom and the Continent of Europe Chinese and Japanese silk piece-goods, this being a trade which they were among the first to handle, some 25 years ago.

They have also a large and growing connection in the United States, which the Lyons House particularly attends to.

The partners are Mr. Herbert Ernest Kahn, Mr. O. S. Dar Kahn, Mr. E. Philipi and Mr. Max Adler.

Mr. M. M. KAKA, Chief Agent, London and Lancashire Life Insurance Company, and the Norwich Union Life Insurance Company. Born at Bombay in the year 1870 and educated at Bombay Fort High School. Left school at 17 years of age and secured an appointment in the Oriental Life Office as a junior. He remained in this office for nearly 7 years, during which time he was promoted to a more responsible

position. In the year 1893, he obtained an appointment as Travelling Agent to the London & Lancashire Insurance Company. He represented the Company in this capacity until the year 1900, when he was appointed their permanent representative at Hyderabad. During the time he acted as Travelling Agent he visited all parts of India and Ceylon. In his very first visit to Hyderabad in October 1893 he took three lakhs of rupees for the Company in two months and-a-half, which is a good specimen of his energetic style of doing business. His field as representative and Chief Agent for the Company at Hyderabad embraces the whole of Nizam's Dominions. He has secured 8,600 members for the London & Lancashire Company alone, some of whom are insured very heavily. He is now also Chief Agent for the Norwich Union Life Insurance Company for whom he is doing excellent business.



Mr. M. M. KAKA.

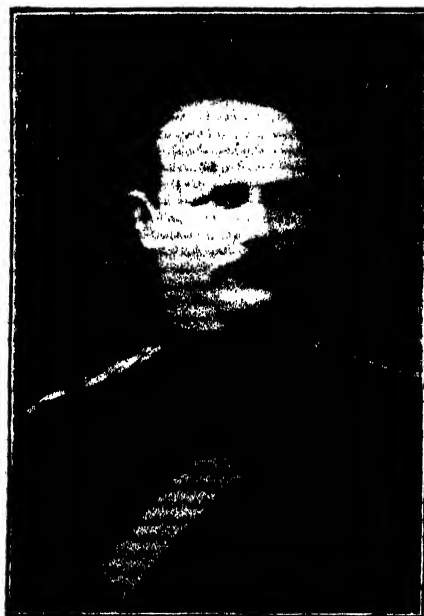
Mr. Kaka is the fourth son of the late Mr. M. S. Kaka, of Bombay, who was a prominent member of the Cotton Industry and one of the largest cotton merchants in Bombay. Mr. M. M. Kaka is a member of the Masonic Fraternity and Senior Warden, Lodge "Morland," Hyderabad. He is keenly interested in the affairs of the Craft.

Mr. WILLIAM ERNSCLIFFE KEOGH. Farmer and Contractor, Jubbulpore, C. P. Born at Dublin, Ireland, in the year 1856. Educated partly at Dublin and partly at St. Xavier's College, Calcutta. He joined the Royal Artillery as Gunner in the year 1876. He was connected with the army for twenty years and six months and saw active service in Afghanistan, Burma, Manipur, the Chin-Lushai Expedition, relief of Chitral, and earned the honour of mention in despatches.



RESIDENCE OF MR. M. M. KAKA.

three times. He was present at the taking of Mandalay and capture of King Theebaw in 1885. He received the medal and clasp for Afghanistan, 1887-89; and two clasps, Burma, 1885-87; clasp, Manipur, 1889-92; and medal and clasp, Chitral, 1896; clasp, Chin-Lushai, 1889-90. He rose to the rank of Warrant Officer and retired with this rank in the year 1902. He started a farming and cattle-breeding establishment in Jubbulpore, Central Provinces, and also went into the contracting business for Government as well as private people. He is well equipped for this business as he passed a course



Mr. W. E. KEOGH.

of dairy farming in England, and is considered an expert in the making of Cheddar cheese. He is proprietor of two villages about twelve miles from Jubbulpore, where the produce is chiefly potatoes. Mr. Keogh is married to Kate, fourth daughter of Mr. James Brennan, of Allahabad.

Messrs. LATHAM BLACK & Co., Import and Export General Merchants, Rangoon. Branch of the firm of Wilson Latham & Co., of Manchester, where their head offices are established. The firm deal in piece-goods which they import largely, and in return export general merchandise and country produce.

The Rangoon house was opened in the year 1892. There is also a branch at Bombay, trading under the name of Latham, Abercrombie & Co., which was established in 1882. The partners are Messrs. A. Abercrombie, J. M. Handasyde Dick, W. H. Dalrymple, and Wm. Kidston Glen.

The LAWRENCE ASYLUM PRESS. This Institution is one of the oldest European ventures in India existing at the present day. It dates from the time before the English power had established itself in the supreme position it subsequently obtained. In the year 1786, the Directors of the East India Company having already established an Asylum for the orphan children of soldiers, who died or were killed in their service in Bengal, recommended the establishment of a similar Institution at Madras, where the European army was in even greater numbers. The Local Government caused enquiries to be made and discovered that, at the various stations, there was as many as 230 orphans left without provision. Subscriptions were raised and the Directors of the Company made a grant-in-aid, and the "Madras Military Male Orphan Asylum," as it was at first called, came into existence in the year 1787. Three years later the number of the inmates had so increased, mortality among European soldiers in the East from disease and battle being very high, that the question of funds became urgent, and the Revd. Mr. Keir, the then Superintendent, proposed the establishment of a printing press for the purpose of contributing to the finances of the Institution and providing occupation for the pupils. From such records as exist, many of the documents being missing, probably lost in the great flood in Fort St. George in 1835, it appears that the press was installed on 13th April 1790. For the first ten years progress was small, but in 1800 the Governor-General placed the Government printing in the hands of the press, with the result that the Asylum soon became self-supporting and in need of no further aid from the Government or public charity. At the time the Government contract was obtained, despite

the utmost economy, the finances of the Asylum were at very low ebb, and this contract was practically the salvation of the Institution. From this time forward the chief support of the Asylum was the press, which became very profitable, although the rates at which the Government work was done, were but half those previously paid by the Government. Among other publications there was issued from the Asylum Press the "Government Gazette," which was the forerunner of the "Fort St. George Gazette," existing at the present day. The Gazette in these days also partook of the nature of a newspaper, and



Mr. W. MUMFORD.

was the best news sheet then extant in Madras. The profits of the Gazette were equally divided between the Asylum, the Government and the Agent and the Editor. The rapid success of the press is shown by the fact that in 1800, when the Government contract was secured, the profits of the establishment were 605 pagodas, but in the following years they rose to 1,692, 8,705, 10,200, 6,273, 6,150, 6,841, and 6,270 pagodas respectively. In 1808, the Asylum authorities added a bindery and paper manufactory in connection with the press, but the latter venture was not found profitable after a time, and it was abandoned. The records show that up to the

year 1816 the press had earned the sum of Rs. 2,50,000 for the Asylum. In 1820, the prosperity of the press was steadily increasing, and in that year profits amounted to Rs. 28,690. In the succeeding year it was doing even better and the average net earnings from 1820 to 1824 amounted to Rs. 36,860. In 1829, the profits were Rs. 50,000, but this was the zenith of its prosperity in these days; for, in 1832, the Government reversed its policy of protection and encouragement to the Asylum Press, withdrawing many of the privileges granted and diverting its printing to other establishments. The Government also established the "Fort St. George Gazette," and compelled the "Asylum Gazette" or "Male Asylum Herald" as it had come to be known, to pay

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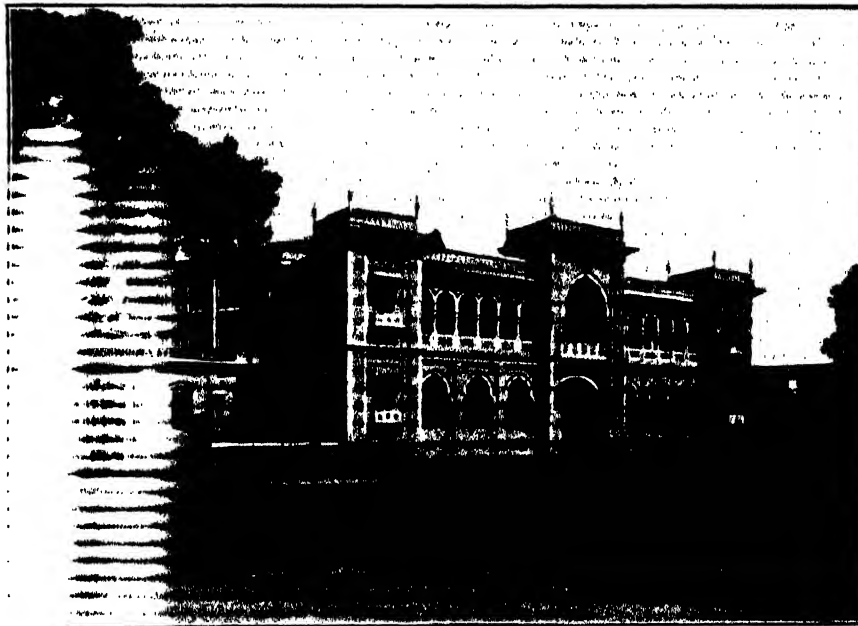
exertions in the printing press. Till the year 1828 the Government contributed nothing to the Asylum except a donation of Rs. 500 per month, and even this was withdrawn for many years. In later years the name of the Institution was changed to the "Lawrence Asylum," and the press became known as the "Lawrence Asylum Press." After its revival as above noted the press steadily improved, and modern improvements in printing machinery were introduced as they arose. It ceased to rely, as time went on, upon the Government contracts, but steadily did an increasing business with the general public, for whom it undertakes

tion with other presses. Its prosperity is thus entirely due to the exertions of the management.

A notice of this Institution would be incomplete without a reference to the "Madras Almanac," as it was called when first issued about 108 years ago, but which is now known as the "Asylum Press Almanac and Directory of Madras and South India." The earliest copy of the work to be seen in the press is that for 1805. Crown octavo in size, and numbering some 246 pages, this book was sold at "two pagodas," and was printed by the boys of the charity and published for the benefit of the Institution. The "Almanac" must

have received a fair measure of support from its inception, for we find that in 1830 it was still being brought out in much the same form although it had increased in size by some 150 pages. Shortly after this the book appears to have been enlarged, for the next volume we take up is Royal 8vo in size—the size in which it at present appears, with some 500 pages. The book in addition to its alteration in size has expanded its title,

and is now called "The Madras Almanac and Compendium of Intelligence." The volume for 1851 is in an excellent state of preservation and is exceedingly well printed. In 1862, the title of the book was again changed to "The Asylum Press Almanac and Compendium of Intelligence." Space forbids a more detailed account of the progress of the book. In conclusion, it may be added that some five years ago it was decided to bring the book more into the form of a Directory, and for this purpose a Streets Directory of Madras was added, to be followed



LAWRENCE ASYLUM PRESS, MADRAS.

not profits Rs. 500 per month, the yearly bank-balance taken in the form of a loan. The press is chiefly supported from the year 1828, when the Government gave mainly to its own

all kinds of printing work. The success which has attended its operations has given rise to the notion that the Lawrence Asylum Press is assisted either directly or indirectly by Government, but this is entirely erroneous. It is, in fact, quite independent, the work done on account of Government being accepted in the ordinary way, and in common with the Government work placed at other presses appraised by the Superintendent of Government Printing. The press is run on strictly commercial lines and the main income is derived from work for the public secured in competi-

a year later by a list of Mofussil residents and many other additions. During the last five years the circulation of the book has doubled, and the handsome volume of over 2,000 pages for the current year is one which any press may justly feel proud of, both in regard to its get-up and the business-like arrangement of its contents.

Mr. LEONG CHYE, Exchange Hall, Moulmein, Commission Agent, Merchant, Distiller, etc. Mr. Leong Chye was born at Lone Chee, San-Naung District, in the Province of Canton, China, in the year 1842. He came to Moulmein in 1858, for the purpose of joining in business with his uncle who traded under the style and firm of "Yeik Lee." After about four years in his uncle's business he took it over on his own account. At that time the business was a very small one, the entire stock being valued at Rupees 2,000. From these small beginnings Mr. Leong Chye has, by dint of industry and enterprise, succeeded in building up the present large business of the firm. In the year 1870, he obtained a license for wine and spirits, and has conducted business in this line ever since. He also trades in groceries, Chinese goods, and also English goods, turning over about a lakh and a half of rupees. In partnership with Mr. G. F. Limouzin he established the Phoenix Distillery in 1884. After six years Mr. Limouzin retired, leaving Mr. Leong Chye sole proprietor of the Distillery, which he has carried on ever since on his own account. In the year 1892, Mr. Leong Chye embarked in the country shipping trade, purchasing two steamers, the P. S. "Tavoy" and P. S. "Defiance," plying between Moulmein and the southern ports, carrying cargo and passengers, also towing vessels in the Moulmein River. He bought a large saw-mill in 1891, which he carried on for some thirteen years, and in the following year he erected a large rice-mill, which he managed till he disposed of it to Messrs. Dieckmann Bros. & Co., Limited, in 1905. He is also interested in tin-mining in the Mergui District. For many years he has held the tari and liquor licenses in the Tavoy, Mergui, and Thaton Dis-

tricts, and held similar licenses, except tari, in Rangoon town. In November 1906, he was given the contract under the new scheme sanctioned by the Local Government for the supply of country spirits from the Phoenix Distillery to the warehouses established at Tavoy, Mergui, Thaton and Amherst Districts. The extension of his business in this direction has given fresh impetus to the trade. He also deals largely in rice and paddy and lends money to cultivators and others. He established a factory for the manufacture of ice and aerated waters in 1907. His large business premises were



MR. LEONG CHYE.

purchased by him in 1877. This is the oldest established Chinese merchant business in Moulmein and Rangoon. Mr. Leong Chye has carried it on for over half a century. He is now assisted by his son Leong Ah Choy. Mr. Leong Chye has earned honours by his charities, receiving in the year 1899 the title of "Htone-Chi-Hum" from the Emperor of China. In 1900, he was included in the Birthday Honour's list of the Government of India, and the Kaiser-i-Hind medal was bestowed upon him. In 1903, he was invited to attend the Delhi Durbar, being the only Chinese representative from Burma at the function. He received the Coronation Medal on that occasion.

Mr. LIM CHIN TSONG, Merchant, 47, 48 and 49, China Street, Rangoon, Burma. The business of which Mr. Lim Chin Tsong is now the proprietor, was founded by his father, Mr. Lim Soo Hean, a gentleman from the Southern Provinces of China, who came to Rangoon shortly after the second Anglo-Burmese War in the early sixties. Mr. Lim Soo Hean at first served as apprentice in the firm of Leak Cheng Seng & Co., one of the most important Chinese firms of Millers in Rangoon. On leaving this firm Mr. Lim Soo Hean set up in business for himself in the premises now occupied by his son. The trade of Burma with Europe in those days before the opening of the Suez Canal was in its infancy, and Rangoon held but an unimportant place in the commerce of Burma. Mr. Lim Soo Hean saw the possibilities of developing commerce between Rangoon and Upper Burma, and imported goods largely from China and the Straits Settlements. Moulmein at that time was a rising place with a large export trade in teak timber and was a good customer for imported goods. By the establishment of Rangoon as the head-quarters of Government, an impetus was given to this town and commercial activity has, for many years, been transferring itself from Moulmein to Rangoon. Mr. Lim Soo Hean profited by the change of conditions, and his business at Rangoon became progressive. His son, Mr. Lim Chin Tsong, the subject of the present memoir, was born at Rangoon in the year 1868. Mr. Lim Soo Hean, alive to the drawbacks occasioned by his imperfect knowledge of English, which impeded the development of his business, decided to give his son an English education. He first placed him at the Rangoon College and subsequently put him under the care of the Christian Brothers, under the directorate of the Reverend Brother Valens, at St. Paul's Institution. The late Bishop Bigandet took a great interest in the young man. At the age of 16, Mr. Lim Chin Tsong left school and joined his father as assistant, in which capacity he continued till his father's death in 1888, when he carried on the business of the firm alone. He extended the business

in all directions. In 1891, shortly after the annexation of Upper Burma, he became local agent for the Burma Oil Company, Ltd., for the sale of the refined oil and other products of the Company. The operations were originally confined to Rangoon, but Mr. Lim Chin Tsong soon afterwards established local depôts in the principal towns of Burma. At that time American oil was very much in demand and the introduction of the local manufacture to the notice of consumer was a heavy task. Gradually the prejudice against the use of the local article was overcome by the efforts of Mr. Lim Chin Tsong, and now it finds favour in almost every household throughout Burma. The productions of the Company are very rapidly increasing. Mr. Lim Chin Tsong also paid attention

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10. **CONCLUSIONS**
 11. **ACKNOWLEDGMENTS**
 12. **REFERENCES**

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THEOREM 1. Suppose that \mathcal{A} is a \mathcal{C}^* -algebra and \mathcal{B} is a \mathcal{C}^* -algebra with a countable dense subset. Then $\mathcal{A} \otimes \mathcal{B}$ is separable if and only if \mathcal{A} is separable.

1. The first group of variables includes the variables that are used to measure the level of economic development of the country. These variables are: GDP per capita, GDP growth rate, and the unemployment rate.

100%	100%	100%
100%	100%	100%

$\frac{1}{2} \times \frac{1}{2}$	$\frac{1}{2} \times \frac{1}{2}$	$\frac{1}{2} \times \frac{1}{2}$	$\frac{1}{2} \times \frac{1}{2}$
$\frac{1}{2} \times \frac{1}{2}$	$\frac{1}{2} \times \frac{1}{2}$	$\frac{1}{2} \times \frac{1}{2}$	$\frac{1}{2} \times \frac{1}{2}$

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THE UNIVERSITY OF CHICAGO

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There is some hope that the
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a successful future. He has also fostered various other industries: the ginning of cotton, the extraction of pea-nut, or as it is commonly called ground-nut oil, the exploration for gold, copper, tin, and other natural products of the country are among his ventures. He has been prominent in charity and is a liberal donor in aid of public institutions, thus setting an example, which has been followed by other Chinese merchants. As a member of the Dufferin Fund he has been instrumental in inducing the Chinese

has identified himself with all that concerns the welfare of the town of Rangoon.

Rai P. M. MADOORAY PILLAY
Bahadur, Merchant, Rangoon.
Born on the 26th December 1858,
in the City of Madras. At the age
of seven he commenced his Tamil
studies under Raghava Chetti Iyer,
and later had the advantage of
tuition under the favour of Tamil
Pandit Mr. Ganpathi Iyer. At the
age of 13 he was drafted to the
S. P. G. High School at Vepery.

He subsequently went to Rangoon, Burma, where he came under the tuition of the Christian Brothers at the St. Paul's Institution, now known as St. Paul's High School. Returning to Madras he completed his education at the Madras Christian College. On the occasion of the Coronation Durbar Mr. Pillay went to Delhi in the capacity of a private clerk to His Grace the Duke of Buckingham and Chandos. After the Durbar he returned to Burma and entered the firm of Messrs. Strang Steel & Co. (now Steel Brothers & Co., Ltd.), as clerk. A few years later he returned to Madras where he married and returning to Rangoon settled down to business on his own account as Ship Dubash, Stevedore and Merchant. Mr. Pillay then decided to visit Europe to complete his commercial and social education and spent some time visiting the centres of the West, touring all over the United Kingdom, Germany, Denmark, France.



Mr. LIM CHIN TSONG.

communities to patronise the Maternity Hospital, and at a time when the funds of the institution were at a low ebb he, and his countrymen, subscribed liberally. Mr. Lim Chin Tsong is an Honorary Magistrate, and in this capacity has earned the esteem and confidence of the public and of the Government. He is a member of the Educational Syndicate, a Trustee and Administrator of the Victoria Memorial Gardens, and a member of the Rangoon Municipal Committee. He takes a keen interest in sport and

Norway, Italy and Egypt, and on his return to India he travelled all over the Indian continent. Mr Pillay is a strong advocate of education as a panacea for the social evils of Hindu society, and in furtherance of this object he established a High School at Rangoon on his return to Burma, which His Honour the Lieutenant-Governor of Burma honoured by opening. He has been liberal in contributing towards Hindu Temples, building one himself, and has contributed to Christian and

Mahomedan Institutions as well. Mr. Pillay has been a Municipal Commissioner for Rangoon for twenty-five years, having been generally elected by the Hindu community, but was once nominated by the Government owing to his absence in Madras not allowing him to stand at election time. He has also been an Honorary Magistrate of the City of Rangoon with second class powers for nineteen years, and is now the Senior Honorary Magistrate on the list. At the time of the Coronation of their Imperial Majesties, Mr. Pillay was granted a certificate of honour by the Burma Govern-



Rai Bahadur P. M. MADOORAY PILLAY.

ment in recognition of his services as a Municipal Councillor, and as a Member of the Dufferin Hospital Fund Committee. He was made a "Rai Bahadur" by H. E. the Viceroy of India, Lord Elgin, who conferred the distinction on him personally on the occasion of his visit to Burma in December 1898. On this occasion Mr. Pillay was referred to as "a wealthy merchant and leading member of the Madrassi community at Rangoon, rendering considerable assistance to the Government as a Municipal Commissioner and Honorary Magistrate, and showing an enlightened munificence in establishing a

school for Madrassi boys in Rangoon, and assisting the Dufferin Hospital with money and influence." He is also a member of the Masonic Craft and has been for a long time President of the "Hindu Mada Paribalana Saba" at Rangoon, sole trustee for certain Hindu charities, and is also a prominent member of various Institutions and Societies. He has established at Rangoon a fine printing press called "The Mercantile Press" fitted with up-to-date plant, which has met with great success. From this press he has issued publications popularising the masterpieces of Hindu poetry, the ancient Indian Epics of the Ramayana and Mahabharata, the Hindu Puranas, etc., which have hitherto been sealed books to the poor and illiterate masses of Hindus at Rangoon. He heads the list of Life Councillors on the General Committee of the Countess of Dufferin's Fund of the National Association for supplying female medical aid to the women of India, Burma Branch. He was the only Hindu gentleman presented to Their Royal Highnesses the Prince and Princess of Wales on the occasion of their visit to Rangoon in 1906. Mr. Pillay was one of the nineteen members of the Reception Committee presented on that occasion.

Mr. AGA MAHMOOD, of Sheriff, Mahmood & Co., 23, Merchant Street, Rangoon, Burma, is the son of M. Hassen Sherazee, a Persian gentleman from Shiraz, who came to Rangoon in the year 1853 from India. He settled in Burma, establishing himself as a Piece-goods Merchant and resided in that country till his death in 1879. Mr. Aga Mahmood was born in the year 1854 and educated privately and at the Government High School, Rangoon. At the age of 16, he left school and joined his father's business, but in 1879 when his father died, he wound up his affairs and took service with Messrs. L. Hernandez & Co., Rangoon, as a bazar clerk. With this firm he remained till 1881 when Messrs. Hernandez closed their business. In the following year he joined Messrs. Edmund Jones & Co. as assistant salesman, but after two years, left

their employ to join Messrs. Biedemann Sheriff & Co., with whom he remained for the next ten years, when, the firm closing its doors owing to heavy losses in exchange, Mr. Aga Mahmood decided to open his own business as a Commission Agent, Import and Export Merchant, etc., which, his preparations having been made, he accordingly did in the year 1894, under the style of Aga Mahmood. This business he continued until 1896 when, having taken Mr. William Sheriff into partnership, the firm's name was changed to Messrs. Sheriff, Mahmood & Co. After five years' association the partner-



Mr. AGA MAHMOOD.

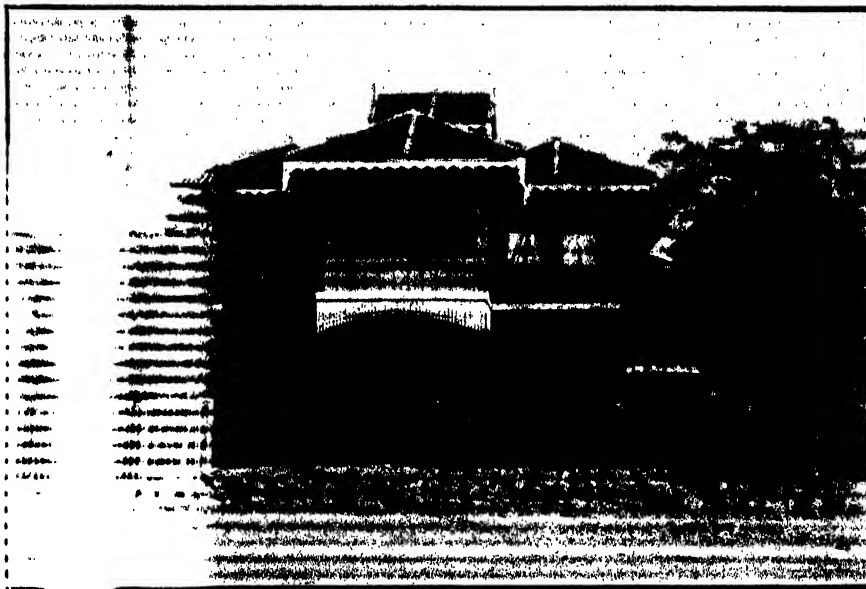
ship was severed by the death of Mr. Sheriff, who in the year 1901 left Rangoon for England to recuperate his health; but he unfortunately died at sea, his death being a severe loss to his surviving partner. Mr. Aga Mahmood settled accounts with Mrs. Sheriff, the widow of his deceased partner, purchasing the goodwill of the firm outright, and has since carried it on without making any alteration in its style. Since 1901 he has enlarged the business by the addition of several departments. Mr. Aga Mahmood was one of the founders of the Rangoon Persian Association, of which he was elected President in 1900. In honour of

the occasion several high Government officials, including Sir Frederick Fryer, Lieutenant-Governor of Burma, were invited and consented to be present at the opening ceremony. In 1902 Mr. Aga Mahmood joined the Rangoon Chamber of Commerce, now known as the Burma Chamber of Commerce, of which he is still a member. In the following year he received the great honour of appointment as Vice-Consul for Persia in Rangoon by His Imperial Majesty the Shah. On the occasion of the reading of the "firman" announcing his appointment, Mr. Aga Mahmood had the honour of the presence on invitation of Sir Herbert Thirkell White, then Chief Judge of the Chief Court of

at Cazamine, Kerbala, Najuf and Samerah. His religious duties being thus performed, Mr. Aga Mahmood returned to Rangoon *via* Bombay, arriving there in 1905. During his absence his business affairs were entrusted to Mr. Marshall James Fox who conducted them ably and also acted as Vice-Consul for Persia. In the year of his return he was re-appointed by Government to sit on the Municipal Board as Commissioner, and in the following year he was appointed an Honorary Magistrate. Mr. Aga Mahmood has been thrice married. In the year 1881 he espoused Sakeena Bibi, daughter of Hajee Mirza Ali

Khan Bahadur H. M. MALAK (Hijab-e-Moulana Malak) BUDRUDIN GOOLAM HUSEIN, President, Mehdi Bag Institution, Nagpur, Central Provinces. Son of an Indian Doctor, Miakhan Hakeem, who practised in Bombay Fort, and was well known and popular among his countrymen and the Parsee community. Born at Bombay in the year 1855 and educated at the Elphinstone High School in his native town. On completing his education, he joined the service of Government in the Treasury Department and was posted to Aden. He served at this centre for two years and-a-half till the year 1880, when

he resigned his appointment and returned to Bombay. Here he entered mercantile life. He carried on business in Bombay for some ten years from 1880 to 1891. In the latter year he came in contact with his predecessor, the late Mr. Malak, but it was not till 1892 that the late and the present Mr. Malak, in company with a few others, transferred themselves to Nag-



"EAST HOUSE," RANGOON, RESIDENCE OF MR. AGA MAHMOOD.

Akbar Korasamy, a well-known merchant of Rangoon, who died without issue in 1889. In 1890 he married the younger sister of M. Backer Sherazee and had issue, a son, Hassen, in 1891, and a daughter, Hosainy Mahmood, in 1897. He lost his second wife in 1903. On his return from pilgrimage he married the granddaughter of Aga Ahmed Ispahany, Khan Bahadur, of whom his son, Abbas Mahmood, was born in 1907. Mr. Aga Mahmood became a Freemason in 1886 and joined Lodge "Star of Burma 614." His residence at 43, Dalhousie Street, Rangoon, is known as the "East House."

pur, started the Institution, and established a business as merchants, which he has carried on ever since concurrently with his other affairs. This institution was founded by the predecessor of Mr. Malak, the son of a Bohra merchant, by name Jeewabhai Heebatullah, who was a dealer in paints, oils and varnishes at Bombay. This particular sect of the Bohra community, to which Mr. Malak also belongs, are known as the Dawoodi Bohras. They believe in Islam or the Mahomedan faith, and belong to the Shiah sect of that religious body. But they differ in many points from other Mahomedans, and believe that they have reached

esoteric knowledge which places them in a more favourable position, as regards their spiritual welfare, than the rest of the Moslems have attained. While all other Mahomedans appear to believe that their religion is such that there is nothing to be kept secret, and have therefore had all their religious books printed and published, the Dawoodi Bohras have refrained from such publication of their religious books, some of which, they hold, are not suitable for general reading, but should be confined to the use of the adepts among their community. For some sixty or seventy years previous to 1891, this Dawoodi Bohra community had suffered for the want of proper spiritual guidance, and their observances had fallen to a matter of ritual only. At this point Mr. Malak's predecessor, being already in communion with some spiritually far advanced superior beings who had made it their duty to look to the welfare of humanity at large, came forward as a religious teacher. He had in view the spiritual enlightenment and welfare of the community, so he devoted himself to the spread of new ideas in connection with their religious beliefs.

The late Mr. Malak acquired no scholastic education and had no knowledge of any language but his native Guzerati. But his natural talents enabled him to establish his reputation as a teacher and a solver of difficult questions in religion, philosophy, physical and mental science, and industrial matters, so that he speedily became distinguished as a leading man. He brought enlightenment to his community, and his memory, as a reformer, is held in great veneration. It was his plan to form a society for the purpose of the mutual improvement and advancement of the members. These were only a handful at the beginning, but the results of their mutual helpfulness in secular as well as spiritual matters has secured their increase in many parts of India, Bombay, Surat, Ahmedabad, Sidhpur, Malwa, Burhanpur and other Guzerat centres inhabited by the Bohra community. Most of the members are traders, carrying on business as shop-keepers and merchants, the Bohras being generally estimated as

good business men. They are all well-to-do folk in one way or another. The institution consists of several families, some having more and some fewer members. The members of the institution now widely known as Atba-e-Malak are all students developing themselves, and the institution resembles a college. It has a distinctly industrial as well as religious side. Women are admitted on equal terms with men, and allowed all advantages of the tuition available. They read and write essays and are instructed in needlework and cooking. Among their subjects are silk and wool knitting and gold thread embroidery. Many



Khan Bahadur H. M. MALAK.

beautiful and interesting specimens of their work were exhibited in the Ladies' section of the Central Provinces and Berar Exhibition of 1908. They are taught at the Institution to become self-supporting and to earn their own living. The men are taught all sorts of industrial work and handicrafts, agriculture, gardening, carpentry, trading, etc. It is expected of them that they shall be self-helpful and useful members of Society. A school for boys and girls is attached to the Institution, and there is also established a Debating Society, in which both men and women take part. A charitable dispensary for the inmates of the Mehdi Bag as well as for the outside

public is conducted in connection with the Institution by Dr. Liva-e-Haq Urf Abbasali Alibhai, L.M. & S., a graduate of the Bombay University. The founder of the Institution, with great wisdom, combined the uplifting influence of religion with utilitarian doctrines, which render those trained at its schools excellent members of the community, thoroughly practical in all the aspects of life. The President Founder died in the year 1899. He had long before pointed out Mr. H. M. Malak as his fit and proper successor, and shortly before his death he nominated Mr. Malak as the future President of the Institution. Mr. Malak during his incumbency of this post, has enlarged the scope of the Society and has opened branches and other centres conducted on the same principles as the parent Institution. Since the year 1893 the Society has had its place of residence at the Mehdi Bag. All members are maintained by the Institution, and every day they gather at the Masjid for religious instruction, which is imparted by the present Mr. Malak, in the same manner as by his predecessor, orally. There are sermons and lectures but no books, and discussions and questions are allowed to enable the members to satisfy themselves. Although the main doctrines are the tenets of Islam, a general idea of all religions is imparted, in the belief of a Universal Religion in the near future. It is understood that Mr. Malak is the natural successor of the founder of the community. It is not an honour that was sought by him. It was the founder who sought him out to carry the work as one possessed of the gifts which give him the necessary insight to which all matters stand revealed. This is the belief of the community, who do not feel that they have lost their president founder, but see him in his successor. It is for this reason that he was singled out for nomination and that the members have a mystic belief in him and his mission. The Institution has many sympathisers outside of the ranks of its members among the Dawoodi Bohra community, and it is the hope of the president and promoters to bring all within its influence; and they believe that the upkeep of the Institution makes for the future

welfare of the whole community, both inside and outside the Institution. Mr. Malak has earned the respect of all and is recognised as one of the leading merchants of Nagpur and the Central Provinces. He is a landlord and malguzar of Umrer, and the rest-house for well-to-do travellers, and the library in the town, owe their existence to the liberality of Mr. Malak. He takes an interest in all public movements and is a member of the Municipal Committee of Nagpur. He served on several Committees in connection with the Central Provinces and Berar Exhibition, in which he exhibited some beautiful interesting Indian products in a tasteful edifice built at a great cost. He is also a life-member of the Mahomedan Educational Conference and a member of the Moslem League, representing the Central Provinces and Berar. He is President by election of the Anjuman-e-Hami Islam, and is recognised by Gov-

ernment as representing the Mahomedan community. His name appears in the Provincial and Executive Committees of the Indian Charitable Relief Fund of 1908. In short there is not any public movement with which his name is not associated. He also holds a seat in the Chief Commissioner's Durbar.

Messrs. MANSFIELD & SONS, Limited, 2, New China Bazaar, Calcutta, Gas, Electrical and Hydraulic Engineers. The principal business of Mansfield & Sons, Ltd., lies in the supply of the Mansfield Patent Oil Gas Apparatus for producing gas from any kind of oil or grease. The gas so produced is utilised for lighting, heating, and driving gas engines, in fact for any description of work to which ordinary gas is applicable. The Mansfield Patent gas plant is largely in use for light, heat and power all over India and Burma. It is extensively used for lighting Rail-

way Stations, Hospitals, Palaces and Mansions of the nobility and gentry in India and Burma, and for similar purposes in all other countries. In Egypt, for instance, Messrs. Mansfield & Sons, Ltd., have just completed contracts for lighting four towns, Damanhour, Kaffyr-Zyat, Zifteh and Fayoum. These contracts were carried through on account of the Egyptian Government. The Company have also laid down their plant for lighting several towns in England up to 5,000 lights. The Company are also interested in steel pipes, syphons and culverts of large dimensions for irrigation purposes, which they supply and erect in position. Besides their specialities the Company undertake general engineering in which they do a large business. Mr. Alfred Mansfield is the Managing Director of the Company, and Messrs. Frank Oliver and Gilbert Mansfield are the other Directors.



KHAN BAHADUR H. M. MALAK'S PREMISES IN NAGPUR.

Messrs. MARTIN & Co., Engineers and Contractors, 16, Phayre Street, Rangoon, Burma. Established in the year 1906. The firm despite its youth is in a very large way of business in Burma, and carries on very extensive operations, especially in the building line. They are at present engaged in constructing offices for the British India Steam Navigation Company at Rangoon, and premises for the Government Engineering School at Insein. Messrs. Martin & Co. have just completed fine buildings for the Military Police Training School at Mandalay, and are engaged in constructing premises for Messrs.



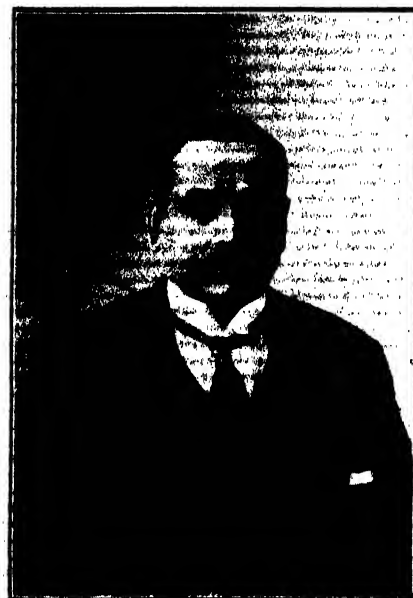
Mr. A. C. MARTIN.

Goonamal, Jewellers at Rangoon, S. Balthazar, and Messrs. Whiteaway, Laidlaw & Co., in the same city. They have also the Jewish Synagogue at Rangoon under construction. The firm quarry their own stone, having quarries at Mopalin, and have also established the manufacture of bricks and cement tiles in a large way at Thamaing, whence they supply not only their own considerable requirements in effecting their contracts, but also the demands of the general public. They have other brick-fields at Kamayut, to supplement the supply of bricks from Thamaing. They hold important contracts from the Government of Burma in the Public Works Department,

in the matter of the construction of roads and minor buildings as from time to time required. Messrs. Martin have introduced the use of reinforced concrete work for floors and buildings into Burma, and are the only firm in the province that use that style of construction. They are large users of iron and steel work in connection with their building operations, all of which they import specially from Europe. They are also large importers of coal from Bengal, and stone from Bombay, all for use in their operations. They keep a staff of architects specially for the designing of buildings and constructions of all descriptions, and are thoroughly equipped in every respect to carry out the largest contracts. Besides occupying a leading position as Constructional Engineers, Messrs. Martin make a speciality of artesian well boring, in which they have been very successful in Upper Burma. The firm are local agents for Crossley's Oil Engines. They have branches at Mandalay and Sittang. The partners are Mr. A. C. Martin and Mr. S. P. Dass.

Mr. Arrakiel Carapiet Martin, senior partner of the firm of Martin & Co., Engineers and Contractors, Rangoon, was born in Persia in the year 1864. As a child he was sent to Calcutta for his education, which he received at the Armenian College and St. Xavier's College in that city, being afterwards placed at the Seepore Engineering College to obtain his technical training. He passed out of the Engineering College in the year 1886, and joined Government service in the Public Works Department, being posted to Burma. In this Department he served with credit, placed in charge of many divisions in succession. He was entrusted with the sole charge of the erection of the head works of the Mandalay Canal, this being the largest canal in Burma. Mr. Martin resigned from the Public Works Department after 14 years' service in the year 1900, and in that year started the firm of Nahapiet and Martin, Engineers and Contractors of Rangoon. While a partner in this firm, he had sole charge of the erection of the Mandalay Bazaar, the largest market in the East. He also constructed all the buildings for the Electric Tramway at Manda-

lay for Messrs. Dick, Kerr & Co., the English Contractors. He dissolved partnership with Mr. Nahapiet in 1906, having decided to start another business in the same line on his own account under the style and title of Martin & Co. as above. He has brought this business to considerable success in the short space of time subsequent to the change. Mr. A. C. Martin was the discoverer of the silver and lead mines of Burma, and started the operations for the Burma Mines & Ry. Smelting Company, of which he was one of the original Directors, until the business was taken over by Messrs. Bewick

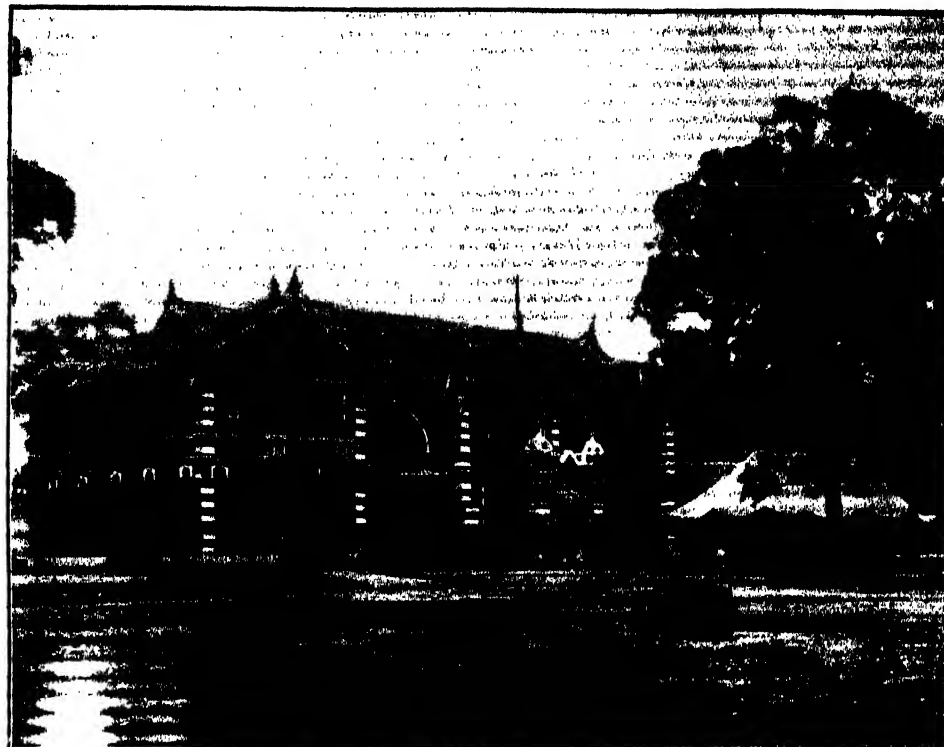


Mr. S. P. DASS.

Morning & Co., of London. The property promises to be one of the largest lead ore smelting works in the East, and is now turning out about 2,000 tons of lead per month. He is a Director of the Victoria Lands Company, and Golden Valley Estate Company, and is also interested in tin mines in the Maliwun and Tavoy Districts. He also holds a directorship in the Burma Mines Development Agency, which concern possesses concessions of good seams of coal. Besides these large interests Mr. Martin is a private landowner, and possesses several building sites and buildings at Rangoon.

Mr. SIVA PADA DASS, partner in the firm of Messrs. Martin & Co.,

MESSRS. MARTIN & CO., RANGOON.



GOVERNMENT ENGINEERING SCHOOL, INSEIN.



Offices of Messrs. MARTIN & Co., RANGOON.

Engineers and Contractors, Rangoon. Educated at the Roorkee Engineering College, and passed into the Indian Public Works Department in the year 1886 whence he was transferred to Burma in 1888. He served in the P. W. D. for a period of about 18 years, and retired on pension in the year 1904. In 1906 he joined Mr. A. C. Martin in starting his present firm under the style of Martin & Co.

Messrs. McDOWELL & CO., Ltd., Madras. This celebrated firm was established early in the last century and is now of some 90 years' standing. The name of the firm of McDowell & Co. has now become a household word in India, and even in other countries, in connection with their special manufacture of cigars, which have come into prominent favour wherever good tobacco is smoked; yet for more than half a century of its existence the firm had no dealings in this line of business. It was not till the year 1882 that the then senior partner of Messrs. McDowell & Co., the late Mr. A. M. Hooper, had his attention attracted to the possibilities of the cigar industry in India. At that time the business of cheroot and cigar making was carried on in this country in a very rough fashion, and though the product was used considerably in India, it had little sale beyond the borders of the country. This has all been changed by the enterprise of such firms as Messrs. McDowell & Co., and Indian cigars are now made in a manner which, coupled with the great improvement effected in the methods of curing the indigenous leaf, has ensured them a welcome in all countries. It was thus some 26 years ago that Messrs. McDowell & Co., at the instance of the late Mr. Hooper, entered the cigar manufacturing industry in which they have since become so famous. The firm at first started operations at Trichinopoly, the original home of the Indian cigar.

Finding the demand for good quality cigars, such as were turned out at the firm's factory, very encouraging, Mr. Hooper decided to extend the enterprise and take up the manufacture on a larger scale and in a manner more consistent with modern methods. It was accordingly arrang-

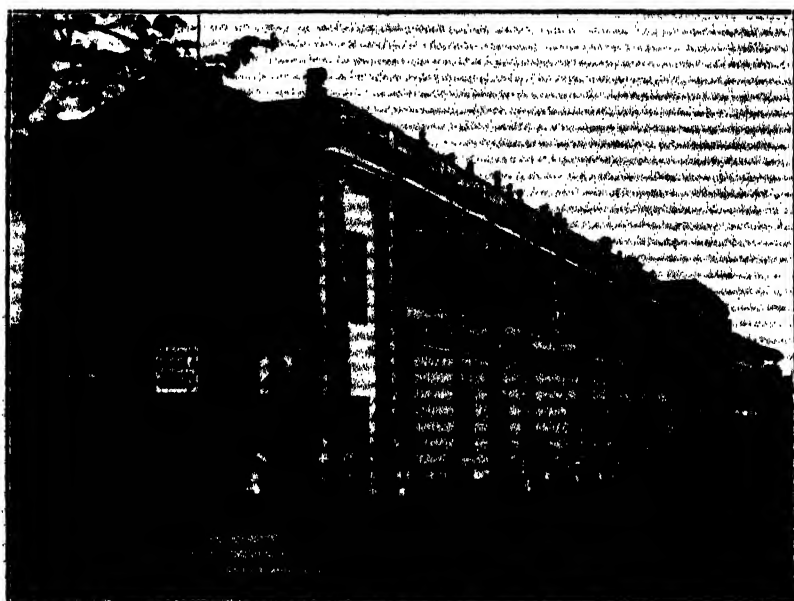
ed to establish a factory at Madras, thoroughly equipped in an up-to-date manner, and to this end Messrs. McDowell & Co. sent down 40 rollers with their families from Trichinopoly to Madras, and a commodious



Late Mr. A. M. HOOPER.

factory was provided adjoining the firm's premises. The result of this move was to give a great impetus to the sale of cigars as manufactured by the firm, and this

was due to the great care which has always been exercised by Messrs. McDowell in the selection of only the finest Indian leaf, and to the attention devoted to the perfecting of the outward shape and look of the cigars manufactured; the wrappers being made of fine Sumatra leaf which has a superior appearance for the purpose to Indian leaf. Up to the year 1900 Messrs. McDowell confined their manufacture to picked Indian tobacco covered with Sumatra leaf and even with these limited opportunities produced a cigar which became a prime favourite with smokers. In 1900, however, the firm showed further enterprise, and in order to keep pace with the times, the taste of Indian users of tobacco having become more cosmopolitan, they introduced the blending of imported tobacco with the Indian leaf, a measure which has been attended with remarkable success, due to the expert knowledge they have brought to bear upon the process of blending the various tobaccos employed. The result has fully justified expectations, and by their skill and knowledge as typified in their cigars, Messrs. McDowell & Co. have built up a reputation for excellence in tobacco manufactures unexcelled in Southern India. In order to keep their factory up to date the firm have spared no

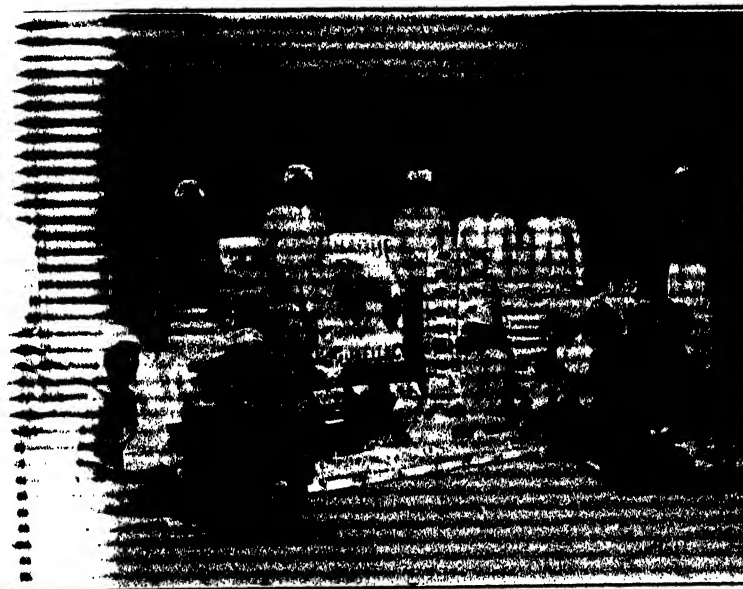


MESSRS. McDOWELL & CO., MADRAS.

MESSRS. McDOWELL & CO., LTD., MADRAS.



MESSRS. McDOWELL & CO.'S FACTORY, MADRAS.



MESSRS. McDOWELL & CO.'S FACTORY, MADRAS.

expense in bringing out from the Continent and England, European experts who have proved of great assistance in keeping the style and finish of the article up to modern requirements. They have also on two occasions sent rollers from Madras to London to manufacture cigars. As a consequence of this liberal policy the reputation of Indian cigars has spread beyond the borders of India, and Messrs. McDowell's productions are known and appreciated all over the world. Their manufactures formed a very prominent exhibit at the Empire of India Exhibition and they were awarded two gold medals in 1895 and 1896 for their high standard of excellence and uniform quality. They were also exhibited at the Adelaide Jubilee International Exhibition of 1887, and the Graham's Town Exhibition of 1888-89, where they were awarded orders of merit. The South African war with the Boers of 1900-01 gave a great impetus to the business. Owing to the enormous demand for Indian cigars for the British troops during this war, the firm's large factory in Madras was found unequal to the task of turning out the cigars required; and an additional factory was established at Trichinopoly, where no fewer than 1,000 hands were employed in making, packing and boxing, the firm's famous make of Bahadur cigars. It is computed that during the continuance of the War in South Africa, 16 million cigars, which placed end to end would measure 1,000 miles in length, were shipped to South Africa, and smoked by the British troops. Messrs. McDowell have introduced great variety into the form of Indian cigars, and now manufacture these in over 50 different shapes and sizes to suit all tastes and pockets. Their large and airy factory at

Madras will accommodate 600 hands, with a daily outturn of from 60,000 to 100,000 cigars. In addition to their cigar manufacturing business, Messrs. McDowell & Co. started, some five years ago, cigarette-making, importing for this purpose the latest machinery from Europe, capable of turning out up to 500,000 cigarettes per day. In this line also the firm has kept thoroughly up-to-date, for, recognising again the importance of expert knowledge, they brought out from England a skilled tobacco blender with over 30 years' experience. The machinery laid down can turn out the choicest blends of Egyptian and Turkish tobacco as well as

every class on imports and exports and undertake Insurance in all its branches.

Messrs. G. McKENZIE & Company, Motor Engineers, Cycle and Athletic Outfitters, No. 40, Soolay Pagoda Road, Rangoon. Sole proprietor, Mr. George McKenzie. Established in the year 1902. The firm are specialists in motor cars, bicycles, billiard tables, and all kinds of athletic gear. They deal principally in motor cars and were the pioneer of the motor business in Burma, and maintain their premier position by up-to-date enterprise. In this line they are agents for the famous makes of "Rover" and "Arrol-

Johnstone Motor Cars." They have made their name chiefly with the first mentioned make of car. Their 8-h.p. "Rover" has established itself as the most popular car in Rangoon, and the local grievance is that the firm cannot supply this car fast enough to cope with the demand produced by its excellent performances. When Mr. George McKenzie first started the business, it was but in a small way for the purpose of dealing in cycles and athletic gear only, of which a speciality was made of Rover "Premier" and "Raglan"

cycles, and Bussey and Co.'s celebrated athletic requisites. A glance round the present extensive premises where the firm now carries in its business, is sufficient to disclose the great enterprise and sound practical knowledge that has succeeded in building up so large a business from small beginnings in the short space of six years, in a small though prosperous city. The large new garage and workshops for repairs to motor cars and cycles recently erected by the firm in 32nd Street, Rangoon, at the back of their premises in Soolay Pagoda Road, are among



Messrs. McDOWELL & CO.'S FACTORY, MADRAS.

the cheapest Virginia cigarettes. Messrs. McDowell aim at suiting all classes of purchasers, though owing to the nature of the demand the bulk of the business is in the latter kind. Over 2,000,000 cigarettes are made and disposed of per month, and yet this branch of the industry is still in its infancy, for India offers a huge field for the cigarette smoking habit. Outside of the tobacco line Messrs. McDowell & Co. carry on a large and important business as wholesale wine merchants, in which they are the oldest established firm in Southern India. They also deal largely in

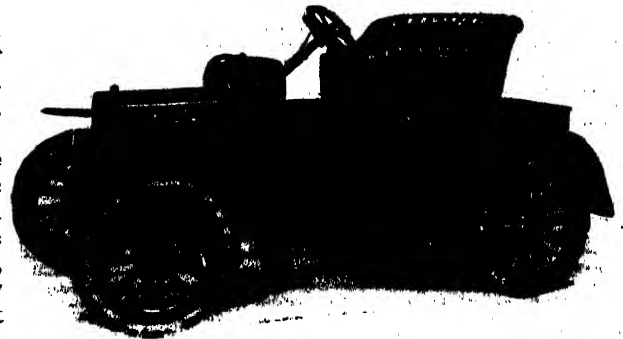
the best in the East. The firm do not confine themselves to repairs to their own specialities only, but do a large business in repairs and refittings for all makes of motor cars



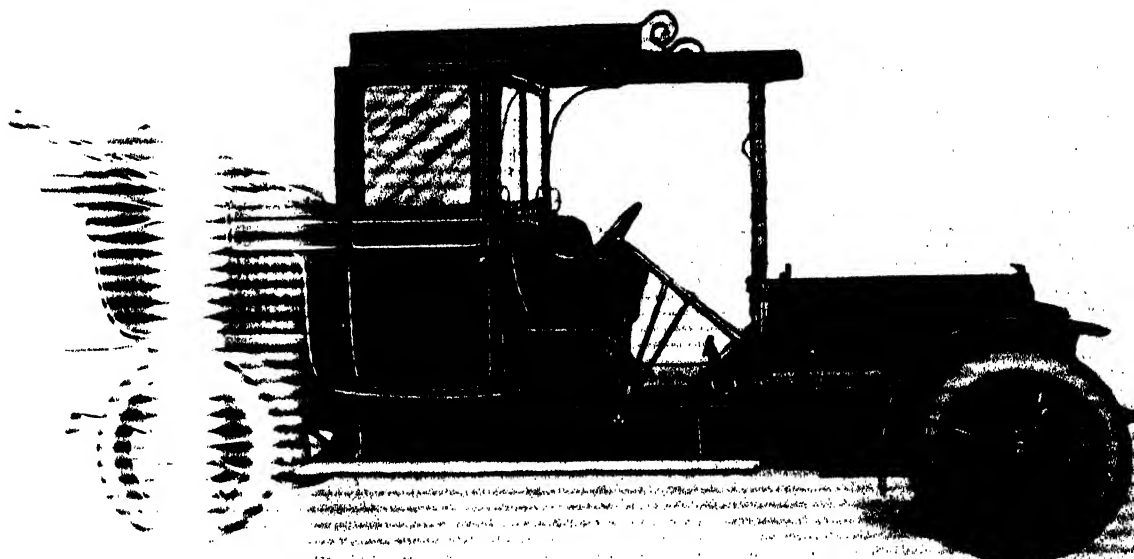
Mr. G. McKenzie has observed a large number of motor cars in the Ruby Mines district.

& Co. employ two trained European motor mechanics, in addition to Mr. G. McKenzie who is a practical Engineer and himself takes an active part in the business. They also have in their employ a practical European motor tyre repairer, and among the most recent additions to their extensive machinery is an up-to-date re-treading plant for re-treading and repairing tyres. Among their latest clients for motor cars are the Burma Ruby Mines district, where Messrs. McKenzie & Co. have supplied a service of half a dozen Arrol-Johnstone cars of high power, to run over sixty miles of the hilliest district in Burma. Mr. G. McKenzie was specially selected by the Government of Burma to inspect the road and report as to whether it was suitable for the proposed motor car service, as hitherto it had taken days to reach Mógok and the Ruby Mines. After thoroughly inspecting the locality Mr. McKenzie was able to report favourably, and advised the Lieutenant-Governor of the Province that the

road was quite negotiable for motor cars, provided the surface was made good. The Government put the work of repairing the road in hand at once, and the sixty miles of road between Thabeitkyin and Mógok is now the finest road existing in any part of Burma. The service of motor cars now inaugurated has proved a positive boon



to the Ruby district. Messrs. McKenzie & Co. gained great reputation for the skill and enterprise with which they put through their portion of the work, and are to be highly congratulated on the excellent results obtained. The firm also supplied motor cars for the service between Toungoo and Thandaung, the new hill station for Burma, which has been a great benefit



24-30 H.P. SPEEDWELL MOTOR CAR.

to residents of Rangoon, having brought the hill station within easy reach of the port. Among the latest addition to Messrs. McKenzie's business is that of the manufacture of billiard tables, for which they are adding a branch establishment. The tables are manufactured of teakwood grown in Burma. For the superintendence of this department the firm are engaging a practical European billiard table fitter, and within a short period they will be turning out some of the best and most up-to-date tables and requisites. Besides the above lines, Messrs. McKenzie stock a very large and complete supply of all descriptions of athletic gear, and a practical European is in charge of this department. All the different departments of the firm's business are under the charge of skilled Europeans. Mr. George McKenzie, sole proprietor, Messrs. G. McKenzie & Co., is a native of Glasgow, in which city he was born in the year 1874. He was educated at Glasgow and in the same town served his apprenticeship to the engineering trade. In 1897 he came to Burma, joining one of the largest local mercantile firms on the usual 3 years agreement. At the conclusion of this period he set up in business for himself and started the firm of G. McKenzie & Co. It is greatly to the credit of Mr. McKenzie that he should have been able at

such an early age and with only 3 years' experience in the country to establish and carry to success such a substantial business. Mr. McKenzie has gained for himself in the motor world a reputation as the "Edge" of Burma. His work in connection with the new and very prosperous motor car service to the Ruby mines has brought him into considerable prominence.

Mr. LOUIS MELOSCH, Proprietor of Rice Mill and Brick and Tile Works, Moulmein, Burma, is a native of the German Empire, where he was born in the town of Altona, in Holstein, in the year 1849. He received his education in Germany. After visiting engineering schools he elected to volunteer for his one year's service in the German army, and joined his regiment in 1869. On the outbreak of the Franco-German War of 1870 he was called out for active service and he served with distinction throughout the whole of the subsequent campaign, from the outbreak of hostilities to the declaration of peace. He took part in six pitched battles and obtained the war medal with six clasps. That coveted distinction, the Iron Cross, which is never granted except for personal gallantry in the field, was also bestowed upon him. In 1871, after the close of the war, he came to Burma and joined the firm of Melosch, Holla-

mann & Co., who were the original pioneer Rice Millers in Burma, established in the year 1859. In 1877 he took over the business and mill and conducted it under his own name, and has carried it on ever since as proprietor. In 1891 he added a Brick and Tile



Mr. L. MELOSCH.

Works and proceeded to manufacture these commodities of clay far superior to that obtainable in other parts of Burma. The bricks and tiles are burned in a continuous kiln and modern up-to-date



Messrs. G. McKENZIE & Co.'s PREMISES, RANGOON.

machinery is used throughout at the works for their manufacture. Mr. Melosch has been a member of the Moulmein Volunteer Artillery since its enrolment, and for the greater part of the time was Commandant of the Corps, holding His Majesty's Commission as Major. He also commanded during his Captaincy. About three years ago he resigned the post of Officer Commanding and joined the reserve. He holds the V. D. decoration. In April 1907 he was re-appointed a member of the Municipal Council of Moulmein.

Messrs. MISQUITH & Co., Merchant Street, Rangoon. The name of Misquith has been connected with the musical world of the Madras Presidency for the past sixty years, and for close on a quarter of a century it has been a household word in Burma, where Mr. O. Misquith is regarded as an authority on all matters musical. The firm's business is the importation and sale of pianos, organs, and other musical instruments, and the construction of pianos suitable for the climate of the East. The firm was founded in 1827 by Mr. R. V. Misquith, who was a member of the Madras Legislative Council. The firm's business has since been carried on by Mr. O. Misquith, who is now the sole proprietor. The firm's address is Merchant Street, Rangoon.

East) in 1865, when the difficulties of transport, until the advent of railways, entailed a journey by country cart of six to eight weeks for a piano from the seaport of Madras to Ootacamund. The instruments imported in those days were the Squares by Schiedmayer & Sons, and later

on the Upright and Grand by Rich Lipp, some of which are still in use at the hill station.

In 1875 the two elder brothers opened a business in Madras which was considerably enlarged, finer premises being purchased in 1879 under the Managership of the present proprietor, Mr.



Messrs. MISQUITH & Co., RANGOON.



MISQUITH & Co.'S SHOW ROOM, RANGOON.

W. F. Misquith. With the spirit of enterprise fairly aroused, Burma, which offered new ground, was the next field of the firm's operations, a branch being opened in Rangoon by Mr. R. V. Misquith in 1889, and Mr. Oscar Misquith placed in charge.

On the death of Mr. R. V. Misquith, the business was taken over entirely as a distinct concern by Mr. Oscar Misquith, and another branch opened at Mandalay soon after.

The special feature of the Burma business is the great importance given to the construction of pianos suitable for this the most trying climate of any in the world. To this end Mr. Oscar Misquith has found it very necessary to personally visit the different factories in England and the Continent to instruct

the makers on the points most essential in the construction of pianos for a hot damp climate.

The Rangoon business is carried on in modern and up-to-date premises situated in the most central part of the city, consisting of a two-storeyed building with spacious show rooms, containing a magnificent display of grand and upright pianos by well-known makers, such as Broadwood, Brinsmead, Bluthner, Collard, Cramer, Hopkinson, Gruss, Lipp, Schiedmayer, and the latest designs in Pianolas and Piano players, etc., etc. A gallery running at the extreme end of the buildings has been specially built for the display of organs and harmoniums, while the first floor has been devoted to an attractive stock of music and musical instruments.

The firm possesses also every facility for the building of pipe organs, pianos, and other musical instruments, and employ a staff of qualified tuners and builders from the leading factories of Europe, to enable them to meet in every respect the musical requirements of the country.

Messrs. MISQUITH & Co., Ltd., Madras, Piano, Organ and Musical Suppliers, Importers and Manufacturers. In the early forties of the last century there settled on the wooded slopes of the Nilgiris a Portuguese gentleman who was destined to leave an abiding mark on the social history of the southern Presidency. This was Signor J. C. Misquita, who had previously been connected with the Roman Catholic priesthood. He was a most accomplished musician, equally proficient with organ, violin, or guitar. Taking up his residence at Ootacamund, he established himself in business there as organist and a teacher of music, and also set up a small emporium for the sale of musical instruments. This was the foundation of the present firm of Misquith & Co., Ltd., a firm that has built up a reputation second to none in India. The founder of the firm in due course married an English lady at Ootacamund, and she bore him eleven children,—six sons and five daughters. Of these one died in infancy, but the remaining ten

flourished, and were all professionally connected with music. In 1878 the Madras firm of Misquith & Co. was founded as part of the Ooty business, but previous to that date the family name had been anglicised, and changed from Misquita to Misquith. The Madras business rose rapidly into prominence, and soon became the headquarters of the firm, with branches at Bangalore, Rangoon, and the Straits Settlements. In due course, the founder of the firm having died, the conduct of the business devolved on three sons, and of these, Mr. Walter Francis Misquith assumed charge of the head-office



Mr. W. F. MISQUITH.

and the branches at Bangalore and Ootacamund, while the late Mr. Roland Misquith managed the Singapore branch of the business, and Mr. Oscar Misquith looked after the interests of the Rangoon dépôt. In 1892 the partnership between the three brothers underwent a change, and although the business in India and Burma is still continued at all the branches formerly controlled jointly by the firm, they are now conducted in separate interests. The main firm of Messrs. Misquith & Co., Madras, was converted into a Limited Company in May 1907, with Mr. Walter F. Misquith as Managing Director.

Misquith Hall, the main place of business of the firm in Madras, is centrally located in close proximity to Government House, and at the junction of the principal roads. The firm own extensive shops and warehouses, and have Organ Works on a large scale, where only the very finest of material is used. They build largely for churches, and are the leading dealers in this class of instrument in India. Organs have to be specially built and protected, to enable them to withstand the climate of this country, and to a solution of these difficulties the firm have applied themselves with such good results that their instruments have invariably given every satisfaction to their purchasers, many of whom, including amateur and professional musicians of note, have expressed their thorough appreciation of the instruments supplied and the repairs to old instruments carried out by the firm. Some of the organs renovated by Messrs. Misquith & Co., have seen upwards of fifty years' service, and are still in use in various places of worship. One example of quick and efficient work which stands to the credit of the firm is specially worthy of note. Between Monday and Friday of one week the bellows of the St. George's Cathedral Organ (a large 3 manual and pedal) were removed, renovated, and replaced. The bellows were in a shocking condition, and their removal involved taking out the whole of the pedal pipes on the C sharp side of the organ, supporting the massive upper work and unfixing a large number of trackers and other portions of the action. Work was commenced on Monday, and by the following Friday the bellows were back in their place, absolutely perfect, and the whole of the portion of the organ that had been disturbed was once more in thorough order. The instrument thus successfully operated upon was a most valuable specimen of Messrs. Hill & Sons' older instruments, dating back to 1857.

Much of the success that the firm have achieved in another direction is due to their policy of importing none but instruments specially suited to the various climates of India, Burma, and the Straits Settlements. This characteristic of the firm has been recognized by a

discerning musical public, and testimonials from hundreds of purchasers testify to the durability, beauty of tone, and general excellence of the pianos supplied. The firm also execute all kinds of repairs, and in this department their work, as is shown by numerous testimonials from well-known and prominent people, is thorough and durable. Messrs. Misquith & Co. represent the best firms of makers, English, French, German and American, and they import on a large scale every kind of musical accessory.

Mr. Walter Francis Misquith, the Managing Director of Messrs. Misquith & Co., Ltd. (more generally known as Wallace Misquith), is one of the leading musicians in Madras. He was born at Ootacamund in 1856, and has been connected with the musical profession since he was five years of age. He is an accomplished organist, and has acted as organist of several churches including St. George's Cathedral, Madras.

He was the organist and choir-leader of St. Stephen's Church, Madras, for many years. A serious illness occurred in 1880, which he overcame without the aid of medicine, and he has since been in the best of health. He has been married, and has a family. He is a devoted member of the Church of England, and is the most notable organist in the colony. He has been awarded a gold medal by the Government of Madras for his services to the Church.

He is the Managing Director of Messrs. Misquith & Co., Ltd., which is a firm of musical instrument makers and repairers. The firm has been established since 1870, and has a large and well-known reputation. It is one of the leading firms of its kind in the district. Mr. Misquith is a native of Denmark, and came to Burma in the year 1898 and joined his present firm, soon rising to the position of partner. He now controls the whole business of Messrs. Mitchell, Christensen & Co.

in the firm and at this time the style was again altered and operations have since been carried on under its present title of Mitchell, Christensen & Co. In the following year, 1905, Mr. Christensen took over the firm and since that time has personally carried on and managed its affairs. They are the leading stevedoring firm of Moulmein and also act as Steamship Agents, and some considerable business has been done by them as Salvage Contractors. Messrs. Mitchell, Christensen, under the present able management, have been extending the scope of their business, and have laid the nucleus of a trading fleet by the pur-



Mr. P. T. CHRISTENSEN.

chase of a seagoing vessel for the Indian coasting trade. There is likelihood of further steamers being added in the near future. The present considerable increase in the business of the firm has been due to the energy and abilities of Mr. P. T. Christensen, who has made it the leading firm of its kind in the district. Mr. Christensen is a native of Denmark. He came to Burma in the year 1898 and joined his present firm, soon rising to the position of partner. He now controls the whole business of Messrs. Mitchell, Christensen & Co.

The MITSUI BUSSAN KAISHA, Rangoon Agent, Mr. H. Kurasawa. This business house is

the branch agency in Burma for the famous Mitsui House of Tokyo, Japan, which carries on many enterprises, including banking, trading, mining and shipping in the land of the Rising Sun and abroad. Owing to the peculiar system in Japan, where the family, and not the person, is the unit, the whole business is controlled by eleven families originating from the famous Fujiwara Clan, of which the present head is Baron Hachiroyemon Mitsui. The Mitsui Bussan Kaisha forms the Trading Department of the Mitsui House, and it is in this department specially that the great operations of the firm are known abroad. The Mitsuis have been established in banking and other business in Japan for upwards of 200 years, but it was not till the ancient exclusive policy of that Empire was abandoned that the foreign trading department known under the above title was established. This occurred in the year 1876. The progress of the house has been rapid since that date, and it is now by far the most important commercial house in Japan, its foreign business alone totalling seventy million yen per annum, or one-seventh of the total foreign trade of Japan. The Company in Japan export coal (from their own mines), cotton yarn, raw silk, habutai rice, cotton cloth, copper, silver, camphor, coral, cement, timber railway sleepers, sulphur, matches, and many other raw and manufactured materials; and import a very wide range of goods, from leaf tobacco up to battleships. They own a fleet of seven efficient steamers, all 100-A1 and of gross tonnage aggregating upwards of 20,000 tons. These steamers ply in the carrying trade to all parts of the Near and Far East, including Rangoon. Although the carrying capacity of their own steamers amounts to more than half a million tons per annum, the extensive operations of the Company require much additional tonnage, and they are well known as one of the great charterers of steam and sail in London and in the East. The port of Rangoon receives its full share of the great trade of the Mitsui Bussan Kaisha, although the Company only established themselves in the city in December 1906. Before that period the trade

of the firm with Burma was carried on by the present Agent, Mr. H. Kurasawa, in his own name. His enterprise and ability built up a trade that rendered it lucrative for



Babu J. K. MOOKERJEE.

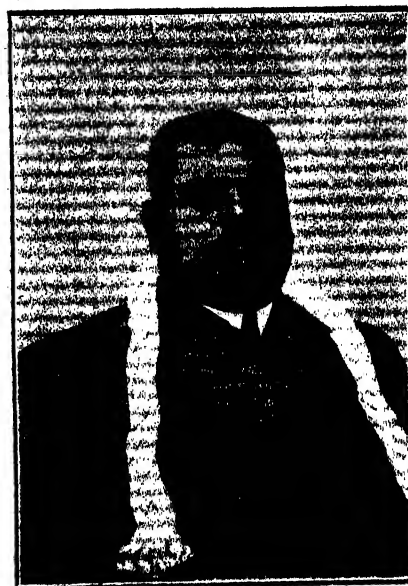
Mitsui & Co. to establish a Branch House at Rangoon, retaining his

services as Agent. The Mitsui Bussan Kaisha represent many of the best European and American firms of manufacturers, and undertake the Agency of the best known Insurance Companies. Their direct trade with Burma is increasing, to the mutual benefit of the two countries. Mr. H. Kurasawa has been a resident of Rangoon for many years.

Babu J. K. MOOKERJEE, Proprietor, Joyrampore Coal Company. This gentleman is a native of Bengal and by caste a high class Brahmin. He is a grandson of the illustrious Bengali Poet, Ranga Lal Banerji. He was born in Bengal in the year 1871, and educated at the Ripon College, Calcutta. At the age of 22 he entered the coal trade, which, at that time, (1893), was showing signs of the great expansion which it has since realised in Bengal. Babu J. K. Mookerjee undertook mining operations, in which he has had considerable success, and has since conducted profitable coal mines in the country. He acquired proprietorial rights in the Jherriah mine, at present owned by the above Company,

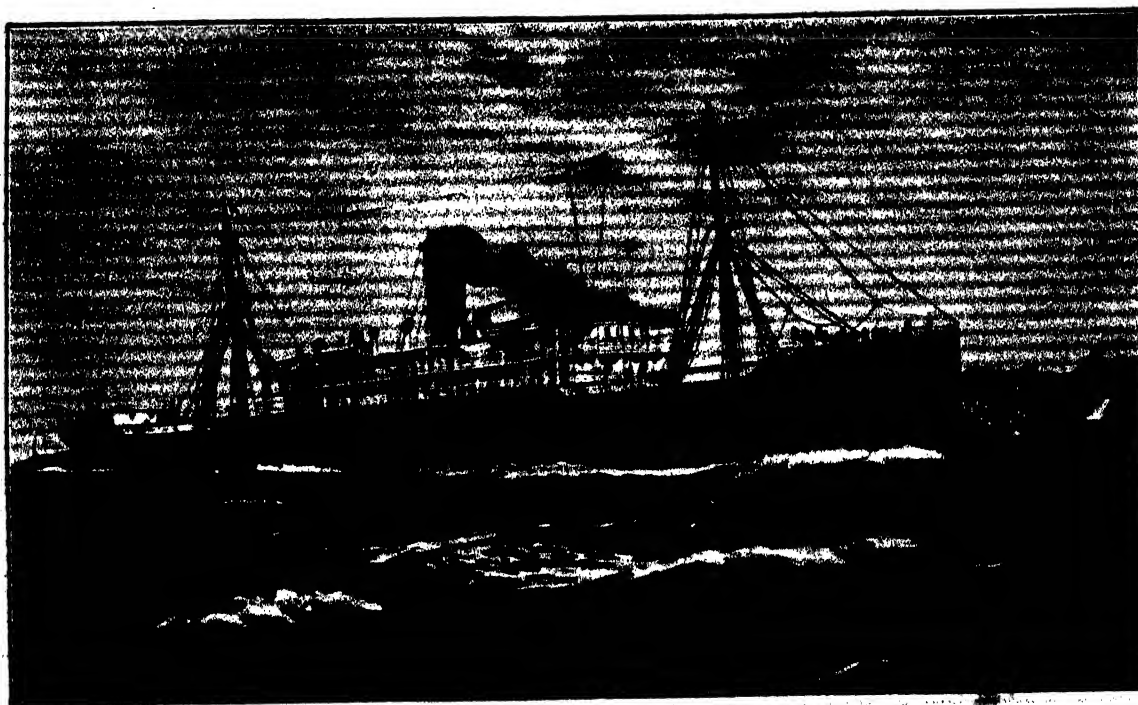
which he is now engaged in carrying on.

Babu RAJKISSEN MOOKERJEE, Ship's Banian, Stevedore



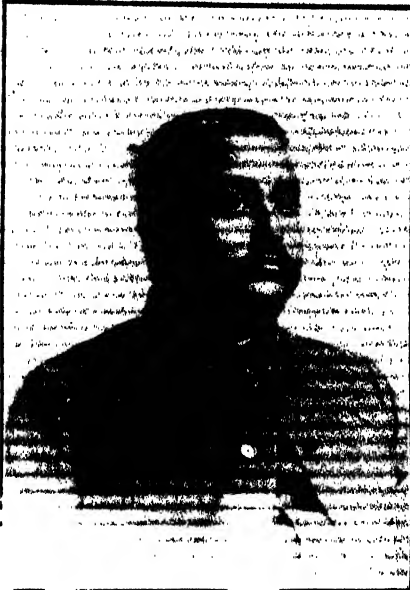
Babu S. C. MOOKERJEE.

and Government Contractor. The firm started by Babu Rajkissen



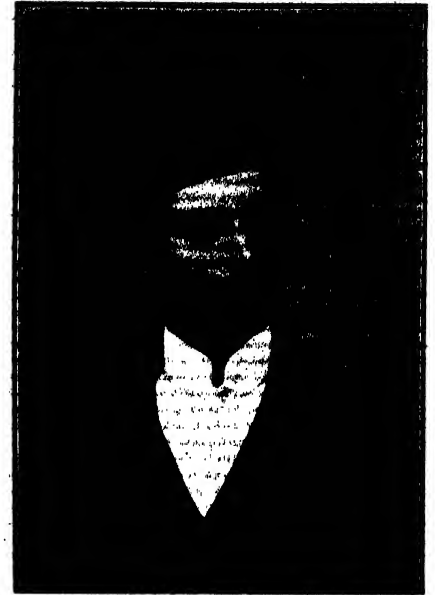
ANCHOR LINE S. S. "CASTILIA"

Mookerjee is the oldest established in this line in Calcutta. It was originally founded in the year 1852, and has been carried on by members of the same family ever since.



Import, Rice Mill Proprietors, Rangoon, Bombay, Calcutta and Chittagong. This firm has been established for nearly half a century, having its beginning in the year 1861, when the enterprising spirit of Moolla Dawood Hoosain brought him to Burma to establish a trading firm in his own name. Moolla Dawood Hoosain was a native of Kathiawar in Western India, his birthplace being Jamnagar, the capital of the State of the same name, now ruled over by Prince Ranjitsingh, the renowned cricketer. After a few years spent in fostering the trade of his firm, Moolla Dawood was joined by his elder brother, Haji Vally Mahomed Hoosain, whom he admitted as a partner to his business. From that time up to the year 1903 the brothers Moolla Dawood and Haji Vally Mahomed carried on the business, together sharing the responsibilities of the firm, the death of the elder brother occurring in that year. After a time Moolla Dawood, feeling the pressure of advancing years, resigned the control of the business to his sons, the sons of Haji Vally Mahomed

title of Moolla Dawood, Sons & Co., in which firm the partners are:—Ahmed Moolla Dawood, Abdul Sattar Moolla Dawood, Suleiman Moolla Dawood, Abdulla Moolla Dawood, and Mahomed Hoosain



MR. MAHOMED H. M. MOOLLA DAWOOD.

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MR. AHMED MOOLLA DAWOOD.

having separated from the firm on the death of their father. The business of the firm has from that time been carried on jointly by the sons of Moolla Dawood on the same basis, but under the new style and

Mucky Moolla Dawood. The firm has flourished under the able management of the successors of Moolla Dawood and has a sound reputation as a good old standing business with which the residents of Burma are well acquainted. The principal business of Moolla Dawood, Sons & Co. consists in Rice Milling and Export and Import Commission Agency. They own Rice Mills at Dawbong, Poozoodoung Creek and at Kanoungtoe, Oil Presses at Dawbong and Myingyan, and a Ginning Factory and Cotton Press at Myingyan and Allanmyo. They have branches at Bombay, Calcutta and Chittagong, and correspondents in most parts of the world. Over and above the thriving business which they command, the partners are large landed proprietors. The founder of the firm, Moolla Dawood, departed this life in the year 1903 at Rangoon. He was an orthodox Mussulman of the old school, and distinguished for his charitable works, by which he earned name and fame, spending freely on others the money which his business abilities enabled him to earn. He

MOOLLA DAWOOD, Sons & Co. Commission Agents.

was zealous in his religion and paid frequent visits to the holy cities of Arabia, Mecca and Medina, in both of which cities he established a residence. He was noted for the



MR. ABDULLA MOOLLA DAWOOD.

helping hand he extended to all needy Indian pilgrims to the land of the Prophet, and by these he was revered and esteemed.

Messrs. MORRISON, DAWN & Co., Produce, Freight and Exchange Brokers, Rangoon. This leading firm of Brokers was started in the year 1883 under the style of Morrison, Downes & Co., by Messrs. Donald James Morrison and Logan Lewis Downes. In 1900, Mr. Frederick Leigh Dawn was admitted as a partner, but the firm was carried on under its old style until the year 1905, when, on the retirement of Mr. Downes, the designation of the firm was altered to correspond with the names of the two remaining partners, and became Morrison, Dawn & Co. The firm is now carried on by these two gentlemen. Mr. Downes arrived in Burma in 1872, and Mr. Morrison in 1876, both as assistants in the firm of Todd, Findlay & Co.

Since February 1st, 1909, Messrs. Morrison and Dawn dissolved partnership, and Mr. Morrison took into partnership Messrs. Philip Henstock and Algernon Haslehurst Smith. The business being continued under the style of Morrison & Co.

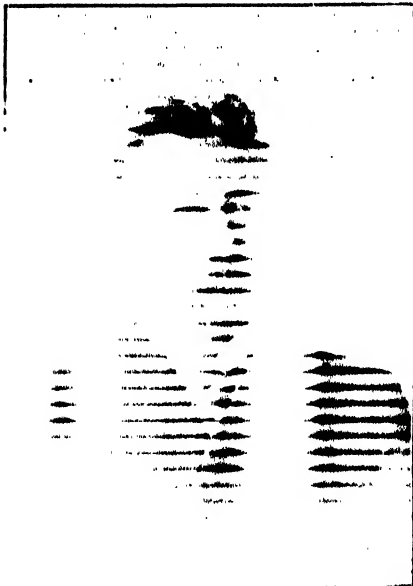
MOULMEIN ICE AND AERATED WATER MANUFACTORY, Moulmein. This business has been in existence since the early seventies, having been originally established by Mr. H. Murken. It was sold by Mr. Murken to Mr. Otto Grotto who carried it on till the year 1898 when he disposed of it to the present proprietors, Messrs. D. H. Hughes and W. P. Mitchell. The output of the Factory when it was first started was but small, some 300 lbs. per day, but in those days this quantity was sufficient not only to supply local demand at Moulmein but to leave a surplus for shipment to Rangoon. The demand at Moulmein since the seventies has enormously increased and now stands at 10 to 12 tons per day, of which the Moulmein Ice Company supply one-third or four tons. The Company's Factory is equipped with the latest machinery for the purpose of ice-making, and is run by steam and oil engines. Besides the manufacture of ice the Company undertake the production of all kinds of aerated waters in which they carry on a large business. This is the oldest business of the kind at Moulmein and holds a leading position. Mr. W. P. Mitchell was educated at St. Xavier's College, Calcutta, and St. Joseph's College, Darjeeling. He is an experienced man in the ice and aerated water business having twelve years in which he has been engaged for. He has served two terms as a Municipal Commissioner at Moulmein.

The **MOULMEIN PHARMACY**, Wholesale and Retail Chemists, corner of Lower Main Road and Mission Street, Moulmein. Established in the year 1907 by the sole proprietors L. T. Ah Pan and Dr. L. T. Ah Pow. The firm carries on a general chemists and druggists' business, importing medical requirements of the very best quality direct from Europe. They stock all descriptions of patent medicines of the best varieties and also deal in medical and surgical instruments required by professional medical men, besides all requisites for medicine and surgery. They have an optical department where they deal in spectacles, eye-glasses and all other aids to vision. They have

installed special apparatus and facilities for the testing of eye sight and which form the best installation of its kind in Burma. The apparatus was purchased direct from the well-known firm of Raphael Whey and Redfern, Ltd., of London. The Moulmein Pharmacy are also opening a photographic branch where they stock and deal in all descriptions of photographic apparatus and requisites, cameras, kodaks, films, plates and printing papers of all kinds, as well as chemicals for developing, etc., of the best qualities. In their business the firm endeavour to assist the poorer classes as much as possible by dispensing the best drugs in making up prescriptions at moderate prices. All bottles and labels are imported direct from Europe and the dispensing department is personally supervised by Dr. Ah Pow himself. Dr. L. T. Ah Pow was born in the year 1875 at Moulmein and received his education at the Moulmein and Rangoon colleges. He took his B. A. degree in 1895-6. For a time he pursued the avocation of teacher at one of the local Mission schools, and during this period he passed the higher grade Teacher's Examination. In the year 1900 he proceeded to Calcutta in order to pursue his medical studies. He joined the Calcutta Medical College, and in 1905 he passed out with the degree of L. M. S. In the following year he passed the M. B. degree, taking first place at the Calcutta University in the Medical Department. He was awarded the University Gold Medal and also the Silver Medal for Midwifery. He obtained the University honours in midwifery and gynaecology in November 1906, and in the following year returned to Moulmein where he has since practised as a physician and surgeon. He can be consulted at the Moulmein Pharmacy at all hours of the day. Mr. L. T. Ah Pan, partner with Dr. Ah Pow in the above firm, was born in 1872 at Moulmein and educated at the Moulmein and Rangoon colleges. For seven years after completing his school course he employed himself teaching in the Mission schools of Moulmein and Rangoon. He succeeded to the timber business of his father in the year 1896 and for the next ten years

carried on the business of a timber merchant. He retired from this business in 1906 and joined his brother Dr. Ah Pow in starting the Moulmein Pharmacy. He acts as Agent for the China Mutual Insurance Company. He has a charitable disposition and has been of considerable assistance to the local Missions. For these institutions he has erected many buildings, obtaining labour on reasonable terms and giving personal superintendence to the work.

Messrs. MOWER & Company, 8-12, Spark Street, Rangoon, Managing Agents for the Rangoon Steam Rope Manufacturing Com-



Mr. S. A. Mower, the Rangoon Docking and Engineering Company, Ltd., is the Managing Agent for the Rangoon Steam Rope Manufacturing Co., Ltd. He is a partner in the firm of Messrs. Mower & Co., Ltd., which is the largest and most complete firm of its kind in the East. He has been in the business for many years and has a wide experience in the construction and repair of ships and boats. He is also a member of the Rangoon Docking and Engineering Company, Ltd., and the Rangoon Steam Rope Manufacturing Co., Ltd.

Docking and Engineering Company, Ltd.; and the Rangoon Steam Rope Manufacturing Co., Ltd. He is a partner in the firm of Messrs. Mower & Co., Ltd., which is the largest and most complete firm of its kind in the East. He has been in the business for many years and has a wide experience in the construction and repair of ships and boats. He is also a member of the Rangoon Docking and Engineering Company, Ltd., and the Rangoon Steam Rope Manufacturing Co., Ltd.

took rope-making and engineering, the business eventually developing into the Rangoon Docking and Engineering Company, Limited, and the Rangoon Steam Rope Manufacturing Company, Limited, in which the partners of Messrs. Mower & Company retain all the shares. The firm of Mower & Co. act as Managing Agents to the two limited Companies, and they have also established the Burma Petroleum Producing Company. Messrs. Mower and Clifford are also Directors and principal shareholders of the Rangoon Oil Co., Ltd. In 1893 the engineering business of the Rangoon Docking and Engineering Company was extended by the purchase of the works of the Burma Iron Works and Engineering Co., Ltd., at Duneedaw, and in the following year the Rangoon Docking and Engineering Company established themselves very largely in the import business. Messrs. Mower & Co. are also Agents for various exporters and for the following English and German firms of manufacturers whose specialities they exploit in Burma:—William Wilson & Co., High class Boilers; Hornsby Akroyd Oil Engines; Wouldham Cement Company; the Southwark Manufacturing Co., Beltings; Wilson Cobbet, Beltings; Turner Brothers, Beltings; Richard Klinger, Patent Water Gauges; Schuchardt & Schutte's Manufactures; Nicholson File Co.; Kirchner's Wood Working Machinery; Koppel & Co.'s Light Railway Materials; T. A. Ashton, of Sheffield; E. S. Hindley & Sons; Royce Limited, Dynamos; W. Sisson & Co.; the New York Export and Import Co. Through the Rangoon Docking and Engineering Company they undertake launch, pontoon and flat construction and repairs, construction of rice and saw mill machinery, and they are importers of engines, boilers, and engineering and mill stores and machinery of every description. The Rangoon Steam Rope Manufacturing Co.'s Works are equipped with the most improved and modern rope and cordage making machinery, and ropes, cordage and paulins of all descriptions and sizes are stocked, or manufactured to order. The present partners of Messrs. Mower & Co. are S. A. Mower and G. S. Clifford.

Mr. SEYMOUR ALFRED MOWER, Senior Partner in the firm of Messrs. Mower & Company, comes of an old Somersetshire family. In 1875 he started business on his own account in the rice-milling industry, which business he disposed of prior to starting the present firm of Mower & Co. In conjunction with Mr. G. S. Clifford, he established the businesses of the Rangoon Docking and Engineering Company, Limited, and the Rangoon Steam Rope Works, as well as others. He is a Director of the Bank of Burma and of the above Companies, and of the Rangoon Oil Company, Ltd. The name of Mr. S. A. Mower in conjunction with that of his firm has been recently brought prominently before the public in connection with the training scheme for the river at Rangoon, land having been purchased from him by the Port Trust for extensive improvements. Mr. Mower has always taken an active interest in public affairs and was for some time a member of the Municipal Council of Rangoon.

Mr. GEORGE STAUNTON CLIFFORD, Partner in the firm of Messrs. Mower & Co., Rangoon, was born in 1867 at the Depot, Jella-



Mr. G. S. CLIFFORD.

pahar, and educated at Wellington, New Zealand. His father served in

the 7th Royal Fusiliers and retiring with the rank of Major, settled in New Zealand. Mr. G. S. Clifford came to India in 1886, where he entered the Government Postal Service, in which department he served in many parts of India and Burma. He resigned the service in 1899 and joined Mr. S. A. Mower, who is his father-in-law, in the business of Mower & Co. Mr. Clifford is now Managing Director of the Rangoon Docking and Engineering Company, Limited, Rangoon Steam Rope Manufacturing Co., Ltd., Rangoon Oil Company, Ltd., and The Bank of Burma, Ltd. Both Mr. Mower and Mr. Clifford are members of the Chamber of Commerce and take an active interest in all commercial matters, more especially in those connected with the development of the mineral resources of Burma.

The **MYSORE FRUIT SYNDICATE, Limited.** This Company was founded on June 1, 1907, with a capital of Rs. three lacs (3,00,000). in shares of Rs. 100 each. 80,000 shares issued are fully paid up. The Chairman is Rao Bahadur Arcot Maigandadeve Mudaliar, a name which augurs well for success. The objects of the Syndicate are the growing and vending of fruit of all descriptions. About forty acres have been planted on land near the Palace of H. H. the Maharajah of Mysore, with 12,000 grape vines, in 21 varieties, also Pears, Plums, Peaches, Apricots, Apples and Cherries, and there are in addition some 150 Australian Navel Orange trees, seedless. The conditions in Mysore are most favourable to the cultivation of fruit and that produced by the Syndicate is of the highest quality and most delicious flavour. The Syndicate have also taken up 600 acres of land in the Marikanavi District of Chitaldrug, about 60 miles from Bangalore where water is available for irrigation from a large lake, the largest and artificial in India, eighteen miles by five miles and 150 feet in depth. They have well-stocked nurseries for extensions and re-planting and further supplies of plants including olives for wind-brake have been ordered from Australia. Despite a generally poor season (being the first year of bear-

ing fruit) the first year of the Company's working resulted in an excess of receipts over expenditure. Scarcity of water for irrigation has been overcome by the kindness of the Maharaja who has accorded the Syndicate permission to draw supplies from the Sankey's reservoir, for the distribution of which a large storage tank of 60,000 gallons capacity has been erected. The soil and climate of Mysore have been pronounced by experts eminently suitable for fruit cultivation and the Syndicate have a prosperous career before them.

Mr. **MICHAEL JOHN PAUL**, Horticulturist, of 30 years' practical experience, Manager, Mysore Fruit



Mr. M. J. PAUL.

Syndicate, Limited, Bangalore. Born at Victoria, Australia, Educated at Model School, Melbourne. Mr. Paul has travelled extensively gathering experience everywhere of the fruit industry. He resided for some time in Persia in the vicinity of Mount Ararat, where he studied the world's old vines of the region, the seedless variety of Sultana grapes. He voyaged from Asia Minor down the Euphrates on goat skin rafts to Bagdad, thence by camel to Damascus, visiting the Holy Land, and, *via* Trieste, on to Vienna, Russia, and Siberia, returning to Astracan and then

by the Volga River, the Caspian Sea, and back through Persia, *via* Teheran the Capital, to India, and back to Australia after three years' travelling. Then to the United States of America where he purchased a fruit farm in California. He sold out after three years and went back to Australia *via* New Zealand. He took up a block of forty acres and established a successful fruit farm, but the excessive rates of wages and general labour conditions in Australia caused him to sell out. He came to India two and-a-half years ago and travelled here to discover the most suitable place for fruit farming, fixing on Mysore. His Highness the Maharaja showed his interest in the project by allowing Mr. Paul to take up 35 acres near his Palace, a great favour. This he successfully planted, being subsequently induced to start the Mysore Fruit Syndicate, Ltd., in which Mr. Paul holds one-third of the shares, and of which he is now Manager. His Highness has shown further interest by arranging for Mr. Paul to give a series of lectures on fruit growing, and there are several students now training under him. Mr. Paul's great and varied experience of fruit growing marks him out as the man to revive the industry in India. He is very sanguine of success, particularly in raisin production and all kinds of dried fruit, the demand for which is large, and the supply comes from countries where labour is much more expensive than in India. He believes India can supply her own needs and also produce very largely for export.

The **MYSORE MANGANESE Company, Limited.** Manganese, in the State of Mysore was brought prominently into notice about 1903-1904. Three gentlemen, Messrs. Holmes, Short and Leisham, took out prospecting licenses. At first they met with difficulties in attempting to turn their discoveries to account and their applications to interest various firms in India and in London were not successful. Early in the year 1905, these three gentlemen combined with a few friends in Madras to start the Madras Mysore Mining Syndicate with a capital of a lakh of rupees, of which Rs. 50,000 were subscribed

and Rs. 20,000 paid up. Mr. W. J. Eales, of Madras, was appointed Manager to the Syndicate, and was the last member to make up the requisite number for the registration of the Syndicate. Mr. Eales had no previous knowledge of the Manganese trade of the west. On the formation of the Syndicate thorough prospecting work was commenced on one of the blocks, Kumsi. A quantity of ore was raised and then began difficulties connected with the question of transport. It was required to carry the ore over $4\frac{1}{2}$ miles of practically trackless country from the mine to the road, and further some 14 miles by road to the Railway at Shimoga. Contractors were obtained to perform this work and the first ore was got away from the mine in September 1905. The first contractor was unfortunately unable to continue, and a second and a third had to be engaged to cope with the output of

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were a syndicate of gentlemen, and the Workington Iron and Steel Company of Workington, England. The price secured was £100,000 in cash and £50,000 in fully paid up shares in the new Company which was floated, named the New Mysore Manganese Company. The sale was facilitated by the fact that the Workington Iron and Steel Company having used one or two cargoes of the Mysore ore had obtained results therefrom never before realised from any other Manganese. The New Mysore Manganese Company was registered in England, the Chairman being Mr. Joseph Ellis, and the other Directors Sir John Randles, M.P., and Messrs. H. Mallalien, J.



Mr. W. J. EALRS.

Mallalien and F. Mallalien, all members of the Board of Directors of the Workington Iron and Steel Company. Mr. W. J. Eales was appointed Managing Director in India. For the management of the Company's mines there is a thoroughly efficient staff of young, energetic and practical men, nine in number, all Europeans. The Company possesses its own thoroughly up-to-date laboratory and chemist, who has not only acted in this capacity for many years at the laboratory attached to the Workington Iron and Steel Works, but is a man practically acquainted with the smelting and treatment of ores. Mr. Stromgirst, the Superintendent in

charge, and his assistant, Mr. Willey, have both obtained high degrees at the Royal School of Mines in England. They have the advantage of a thorough knowledge of metallurgy as well as geology. The railway between the mines and Shimoga was completed early in 1908 at a cost of some £50,000 to £60,000. It is now equipped with ten locomotives with a sufficiency of rolling-stock. In spite of the general dulness in the metal trade at present prevailing the mines are despatching some 6,000 tons of ore monthly. Kumsi is the chief block which has been mined up to the present. From this mine alone to end of June 1908 some 170,000 tons of ore had been shipped to Europe. The ore is placed on board at Marmagoa, 240 miles south of Bombay. The quantity shipped forms almost a record from any one particular mine, considering that during 1906-7 the ore had to be sent by bullock carts, each taking no more than half a ton to the railway. The strain of such an arrangement on the organisation may be imagined. Another mine also being worked by the Company has produced 20,000 tons of ore. The Company's Manganese is remarkable for its evenness and high percentage of metal, the average of the whole quantity shipped being as high as 48 to 50 per cent. The management, not only of the Madras Mysore Mining Syndicate, but also of the Mysore Manganese Company and of the New Mysore Manganese Company, is in the hands of the Anglo-Indian Trading Company, of which Mr. W. J. Eales is the Managing Director. He arrived in India in the year 1882, and though but a youth at the time took command of a large Company, interested in leather, of which commodity Mr Eales is a specialist, and considered one of the best authorities in South India. Devonshire, England, is Mr. Eales' native county, where he was born in the year 1860. His family is an old Devonian one which has contributed many of its members in past and present times to the Navy. He was educated at Weymouth Grammar School up to the age of 14, when he was sent to Germany for the finishing of his education. In 1875 he joined Messrs. F. W.

Heilgers & Co., of London and Calcutta, his father's firm, in which he obtained his training in commerce. Later he was apprenticed to a firm of hide and leather brokers, and thereafter came to Madras on behalf of Messrs. De Clermont and Donner, the largest firm connected with the hide and leather business in London. He started in business on his own account in 1891 and six years later converted his business into a limited liability company under the style of the Anglo-Indian Trading Company. For three years Mr. Eales was Government representative on the Madras Harbour Trust. The Anglo-Indian Trading Company are also now Managing Agents and Secretaries to the Bangalore Mineral Syndicate, the Mysore Chromium Company, the Raichuri Syndicate, and Shimoga Gold Fields, Ltd. Mr. Eales is a Director of all these Companies and Chairman of two of them. Quite recently the Anglo-Indian Trading Company has undertaken the Managing Agency of the Peninsular Minerals Company of Mysore in the expectation of placing that Company on a firmer position and of doing as well for it as for the other Companies whose affairs they have successfully managed. The head office of the Anglo-Indian Trading Company is at Madras, and there are branches at Marmagao and Bangalore.

The **MYSORE SPINNING AND MANUFACTURING COMPANY** Ltd., Bangalore. Head office, Bank Street, Fort, Bombay. N. Sirur & Co., Agents, Bombay. Established in the year 1883. Confine their operations in this line to the spinning and weaving of cotton only, but have added a Flour Mill attached to their Spinning and Weaving Factory, at which they grind, roll and store flour for local consumption. The Spinning and Weaving Mill contains 16,000 spindles and 223 looms and makes yarns from "6s. to 32s." The Mills are now under extension for weaving purposes. The Company do their own dyeing, and manufacture coloured cloths. The Government of Mysore is interested in the enterprise of the shareholders of the Company, and have rendered it assistance in the past for the purpose of fostering the

spinning and weaving industry. The Flour Mill has an output of about 25 bags per diem. The buildings are pucca edifices of stone with tiled roofs, substantially built and covering about six acres, and the Mills give employment to about 800 hands. The capital of the concern is Rs. 4,23,370. The Chairman of the Company is Mr. V. S. Rodrigues.

Mr. **DONALD JAMES ROSS**, Manager of the Mysore Spinning and Weaving Mills, Bangalore, was born in Scotland, and educated in England. He studied at the Manchester Technical School where he remained



Mr. D. J. Ross.

for a course of five years' training. In 1893, he proceeded to Ceylon to take charge of the Ceylon Spinning and Weaving Mills. He remained in charge of these Mills for ten years, having joined the above Mills at Bangalore as Manager in October 1907.

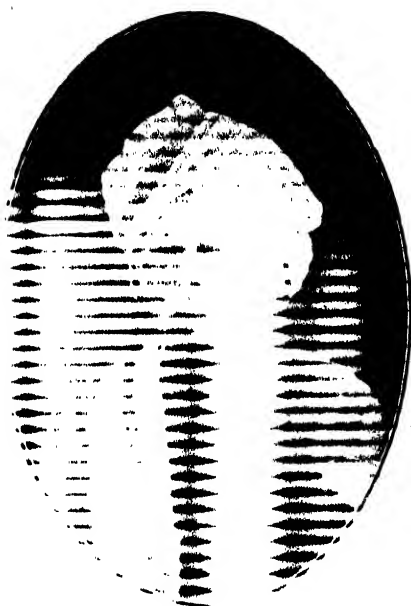
Rai Bahadur **DHARMARATNAKARA ARCOT NARAYANSWAMI MUDALIAR**, Merchant. Born May 25, 1828. The Rai Bahadur, though coming of an historic family the members of which had occupied high positions in the past, yet has raised himself by his own exertions from a position of obscurity to one of affluence, and is now marked as the richest man in the Civil and

Military Station of Bangalore. His great-grandfather Sandiappa Mudaliar was Secretary to the Rajah of Jinji. He also possessed large landed estates. He left a son, Muthu Pillai, who was purveyor to the Nawab of Arcot and obtained much consideration from that ruler, being favoured with marks of honourable distinction. He married the daughter of Parasurama Mudaliar, Superintendent of Gun Carriages and Councillor to the Nawab. Muthu Pillai by reason of his attainments in Persian and Hindi was appointed Headman by the people of North Arcot on the occasion of the revenue settlement of that place. He carried out his duties in this connection to the satisfaction both of the people and the Government. He fell into misfortune however. A disastrous fire destroyed his house and all its contents. His loss was so great that he died shortly afterwards of the shock. His property being thus swept away, he left his family in poor circumstances. His son, Muniswami Mudaliar, came to Bangalore and supported himself and family by service as an accountant. Muniswami was the father of Mr. Narayanswami and had two younger sons as well, Muniswami and Muthuswami. The father died when Mr. Narayanswami was ten years of age and ever since that time the present Rai Bahadur became the support of his mother and brothers and embarked on the career of industry which has led him to his present commanding position. At this time he had no knowledge of English but was able to read and write his native language, Tamil. It was not, however, till the year 1850 when he was 22 years of age that Mr. Narayanswami commenced the mercantile operations which have since led him to fame and fortune. At first he traded in vegetables between Bangalore and Madras, market produce commanding high prices in the latter town while being extremely cheap at Bangalore. This business prospered and he added to it trade in Madras salt, which he disposed of at Bangalore; within a couple of years he had amassed sufficient capital to establish a shop in the Cantonment which quickly became lucrative.

and he opened a branch at the Infantry Barracks. In 1859 he secured the patronage of the late Maharajah Krishna Rajah Wodayar Bahadur and the progress of his business from that date was extremely rapid. His dealings became more and more important. In 1862 he adopted the title of "Mysore Hall" for his emporium in token of gratitude to the sovereign prince of Mysore. In all his dealings Mr. Narayanswami secured the esteem and respect of his clients, and his popularity with the higher officials of State soon became firmly established. In 1867 he launched out into a new

honours he has received have been unsought. The late Maharajah of Mysore who held him in high regard once sent for him to enquire if there was any favour he could bestow upon him, and was met with the characteristic reply from Mr. Narayanswami that he wished no other favour than His Highness' grace, but later he begged the Maharaja to render all possible aid to the educational institutions he had established, which request was readily granted. On the occasion of the Imperial Assemblage at Delhi Mr. Narayanswami Mudaliar received the title of "Rai Bahadur" as a recognition of his public spirited acts of charity. Mr. Saunders, then Chief Commissioner, who attended the Assemblage and had personally interested himself brought him news of the title that had been bestowed on him. The responsibilities of great wealth have always been well recognised by the Rai Bahadur, whose benefactions have been on a large scale and have extended over many years past. In the year 1873 he founded an English School teaching up to the Middle Standard. After years of usefulness the school was raised to a High School and is now the only establishment in Mysore founded by a Hindu gentleman which teaches up to the Matriculation class. It possesses a Committee of management on which, among others, several high officials serve. The school buildings are magnificent erections of granite situated in a healthy part of the Station. In connection therewith two branch institutions, one at the Cantonment and one at Ulsoor, have been opened. The famine of 1877 gave the Rai Bahadur a great opportunity for his charitable endeavours in alleviating distress, of which he took full advantage. Food and shelter were bestowed by him upon many unfortunates who were affected by the scarcity of food. As a relief work he started a Woollen Mill where boys were taken in, clothed and fed, and taught to work. In this asylum they were allowed to remain until of age. In 1883 the Rai Bahadur failing in an attempt to persuade the Government of Mysore to look favourably on the cause of the Pariahs who had no means of

education, himself started a school at Ulsoor which was styled the "Thirukalathar" School teaching up to the Primary Standard. Again, in 1886 he gave the cause of education efficient aid by starting a Girls' school, which, in honour of his deceased wife, he named the "Govindamull" School. In 1893 the Rai Bahadur founded an Orphanage of which H. E. Lord Lansdowne, at that time Viceroy of India, laid the foundation-stone before a very large gathering. He deposited Rs. 30,000, the interest of which is devoted to meet the ordinary expenses of the institution. The Viceroy, in replying to ar



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**Rai Bahadur A. MAIGANDEVA
MUDALIAR.**

address on that occasion, alluded to the many benefactions of Rai Bahadur Narayanswami. He said: "I feel quite sure that the Orphanage will prove a valuable addition to the charitable institutions of Bangalore. They owe a deep debt of gratitude to the benevolence of Mr. Narayanswami Mudaliar. I find that many years ago, recognising the want of schools, he built a school at a cost of Rs. 50,000 and he afterwards added three branch schools in the neighbourhood. Again, at the time of the famine of 1877-78, he took upon himself the charge and maintenance of a large number of

indigent orphans. He built rest-houses. To these benevolent institutions he has now added this orphanage which he has wisely decided to erect in the neighbourhood of the High School, so that the orphans will not only be supported and maintained, but will also receive a suitable education in the neighbourhood of their place of residence." After alluding to the recognition of the Rai Bahadur's liberality and the honours he had received from the British and Mysore Governments, His Excellency added:—"I trust that Mr. Narayanswami Mudaliar's generosity may afford a valuable incentive and example to the wealthy men of this part of India." In 1896 the Rai Bahadur constructed a building for the use of the Brahmo Somaj. Again, when the plague was at its height Mr. Narayanswami proceeded to Conjeeveram, and while at that place the inhabitants represented to him their want of a Girls' school. Mr. Narayanswami complied with their wishes and established the school, purchasing the necessary building. The school, however, rapidly outgrew the premises and he generously provided a new building, the foundation-stone of which was laid by the Hon. Dewan Bahadur Mr. (now Sir) Subramanya Iyer, of the High Court of Madras. On this occasion Mr. Subramanya Iyer recounted the many charities of the Rai Bahadur and said: "Those who, like our friend Mr. Narayanswami Mudaliar Avergal, freely distribute their wealth for worthy objects, may well look upon themselves as the specially chosen instruments of Providence." This institution was dedicated to the memory of Mr. Narayanswami's son, who inspired and helped him to carry out his many charities, and he accordingly named it "Kannappa Mudaliyar Balika Patasala." A further public benefaction was the founding of a Technical School for Engineering. The Mysore Government have aided this institution by providing passed scholars with appointments in the Public Works Department. The late Maharaja Chamarajendra Wodeyar Bahadur at the Dusserah Assembly in 1894 conferred on Mr. Narayanswami the title of

"Dharmarathnakara." Rai Bahadur Narayanswami now lives in retirement full of years and honour. The management of his vast concerns and possessions have been entrusted to his nephews and his time is now fully occupied in the study of religion, of which he is a student of all. He is a firm friend of the Brahmo Somaj and the social reform movement. The following is a list of his public benefactions at Bangalore:—The High School, Civil and Military Station. Technical School attached to the above. Branch Primary School, Ulsoor. Thirukalathar School, Ulsoor. Govindamull's School, Ulsoor. Orphanage. Chat-trum for travellers. Maternity Ward in the Bowring Civil Hospital. Temple and Library. Two Police outpost Stations, Civil and Military. At Conjeeveram, Hindu Girls' School, Feeding House and second Hindu Girls' School. These have cost Rs. 1,90,000 and he has given a further Rs. 1,70,000 in endowments, besides spending no less than Rs. 38,000 in feeding and private charities. These charities are administered by an influential Committee of which Mr. Narayanswami's nephew, Rao Bahadur Arcot Maigandadeva Mudaliar, is the Secretary. This gentleman was born in 1862 and is the second son of Mr. Narayanswami's youngest brother, Muniswami Mudaliar. Mr. Maigandadeva received his education at an English school where he devoted himself with great success to study. He left school early as his uncle had much need of him to assist in managing the various affairs of his business. He showed such skill in business that after a few years the whole management was entrusted to him. Mr. Maigandadeva has worthily upheld the traditions of his family for public-spirited acts of charity, and in fact has been the right hand of his generous uncle for years past, dispensing benefactions. He was married in 1881 to Sivagangai Ammal, whom he unhappily lost after a wedded happiness of twelve years. In her memory he built a Gosha Hospital on the occasion of the Diamond Jubilee. He has taken great interest in social and religious affairs and was instrumental in establishing the Social

Club at Bangalore, and also in there locating the Theosophical Society. For many years Mr. Maigandadeva acted as a Municipal Commissioner of Bangalore and has also for a long time been a Special Magistrate. Mr. Maigandadeva has been the worthy associate of his uncle, and has earned the enthusiastic esteem of his fellow countrymen by his benevolent disposition and his ability in representing them as their spokesman on various occasions. This esteem found vent in universal congratulations when in 1901 the British Government conferred upon him the personal distinction of the title of "Rai Bahadur." Rai Bahadur Maigandadeva is Director and Chairman, Mysore Fruit Syndicate, Chairman of the Mysore Tannery Co., Ltd., Chairman, Bombay-Mysore Mineral Syndicate, Ltd., Director, Bangalore Woollen and Silk Mills Company, Ltd., Director Bangalore Bank Ltd., and President, Hindu Widows' Pension Fund.

Messrs. NAHAPIET & MARTIN, Engineers, Builders and Contractors, 76, Dalhousie Street, Rangoon. Established 1900. Sole proprietors, Messrs. M. J. Nahapiet and V. J. Nahapiet.

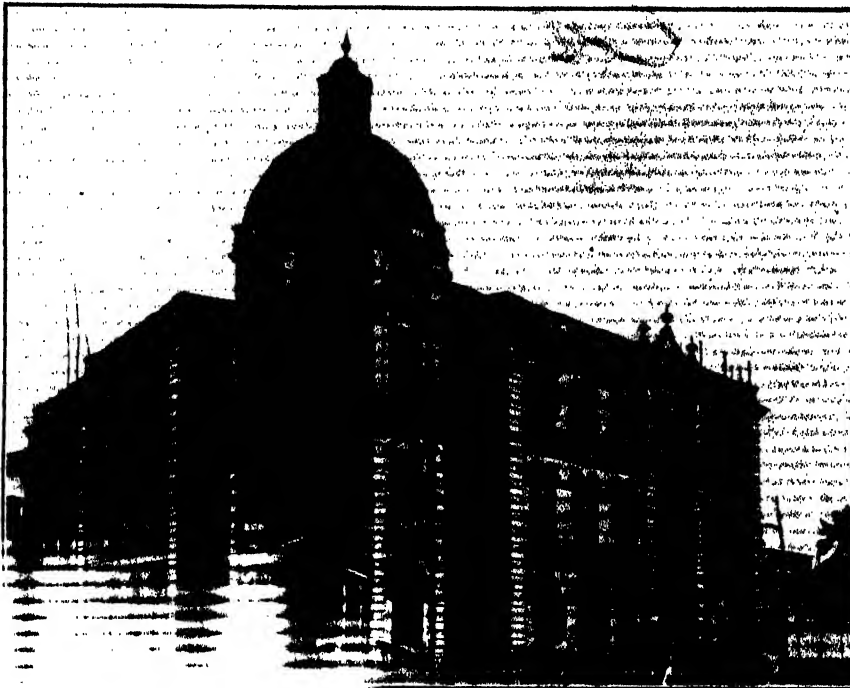
Messrs. Nahapiet and Martin are in a very large way of business in Burma, and have in addition agencies all over India and Europe. Among other large contracts carried out by the firm, was the Mandalay Market, a fine structure and the largest market in the East, covering 600,000 square feet or 14 acres. The cost was about ten lakhs of rupees. The whole of the steel work, amounting to over 1,200 tons, and all the rest of the material was supplied and erected by Messrs. Nahapiet and Martin. The Bazaar is divided into 12 sub-divisional blocks, 8 large and 4 small. These contain in all 1,152 stalls. Up-to-date sanitary arrangements in connection with the market, but outside its precincts, were erected by the firm. The market is fully equipped with fire appliances, also the work of the firm. The whole was built within eighteen months, and forms one of the chief sights for visitors to Mandalay. The Electric Tramway and Lighting Power Stations at Mandalay are also the work of

Messrs. Nahapiet and Martin. The power supplied runs the tramcars as well as supplying electric lighting for the town of Mandalay. The

was the manufacture of Messrs. Edward Wood & Co., the Ocean Iron Works, Manchester. Messrs. Nahapiet and Martin are also the

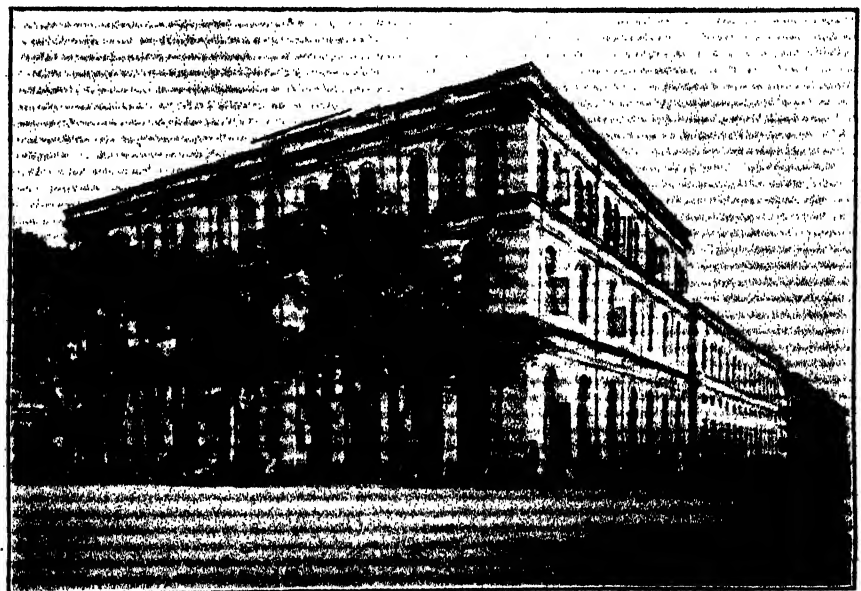
the agency for the Steleonite British stamped metal ceiling and decorations, and have many other agencies in the building trade. They have fine show rooms, fully furnished with samples of all requisites for which they hold agencies. Messrs. Nahapiet and Martin employ a daily average of 500 hands, supervised by the largest European staff in Burma.

Mr. MESROP JOSEPH NAHAPIET, Senior Partner of the firm of Nahapiet and Martin, was born in Persia in the year 1866 and came to India as a child. He was educated at the Armenian College, Calcutta. On the completion of his studies he obtained an appointment as Apprentice Engineer with the Rangoon Municipality for four years, and subsequently served for a further term of 13 years as Assistant Engineer to the Municipality. He resigned for the purpose of starting his present firm with Mr. Martin. For a time Mr. Nahapiet, senior, served as a Municipal Commissioner representing the Rangoon Trades Association. He is a Director of the Burma Mines and Development Company and the Burma Hotels Co., Ltd., and was one of the founders of the Burma Railways and Smelting Works, originally known as the Great Eastern



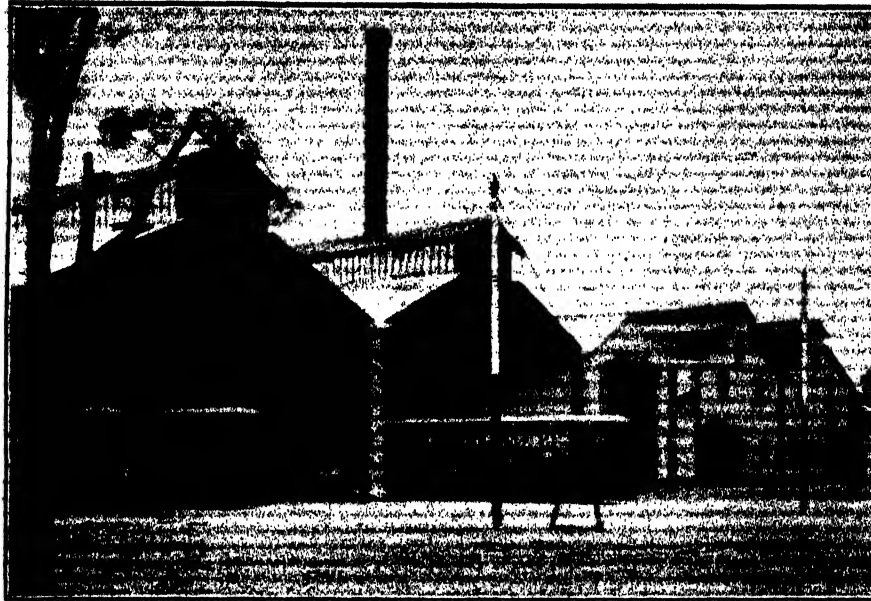
CURRENCY OFFICE, RANGOON.

manufacturing agents in Burma for the well-known and celebrated Mack patent partitions, the works for which are situated at Dunneedaw East, Rangoon. They also hold

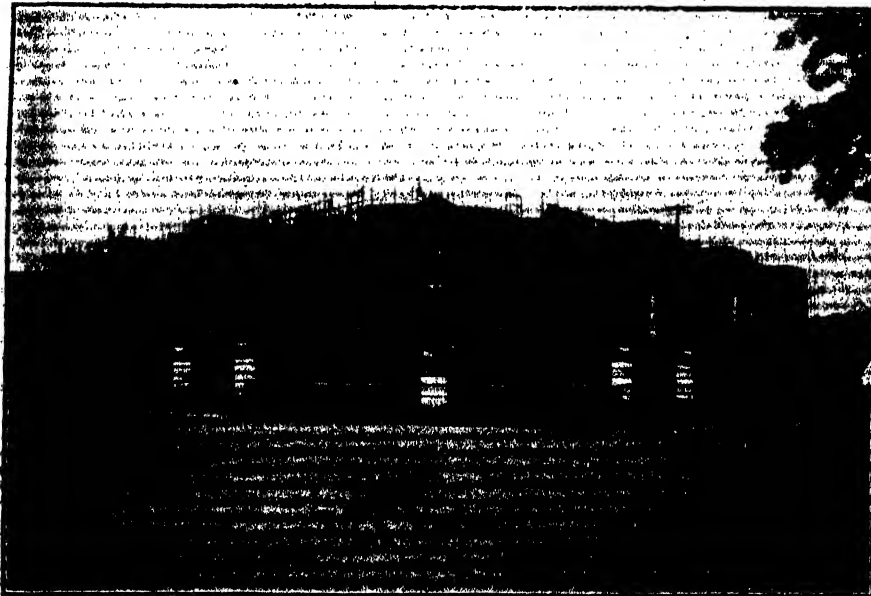


BUILDING ERECTED FOR STEEL BROS. & CO., LTD., RANGOON.

**MESSRS. NAHAPIET & MARTIN,
ENGINEERS, BUILDERS AND CONTRACTORS.**



EXTERIOR, POWER STATION, MANDALAY.



BUILDING UNDER CONSTRUCTION BY MESSRS. NAHAPIET AND MARTIN, RANGOON.

Lead Mining Company, in which he is still a large shareholder.



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the Rangoon Municipality in 1895, taking charge of the Town Lighting Department. While in this employment, he engineered several works outside of his own department. He then returned to Messrs. Sarkies Bros. for another period of five years and took the sole management of their hotels in Penang and started the Strand Hotel at Rangoon for the firm. In 1902 he joined the firm of Nahapiet and Martin, in which he served for three years as Assistant, obtaining a partnership in 1905. While Assistant to the firm, he was in charge of the erection of the Mandalay market as Clerk of the Works.

The NATIONAL SOAP FACTORY, which is situated at No. 92, Upper Circular Road, Calcutta, has achieved a sterling reputation for the manufacture of soaps of standard quality and excellence.

No expense has been spared in equipping the factory with the most modern machinery available, and all the latest methods have been introduced into the manufacture.

A Japanese expert of long experience has been placed in charge of the works and has introduced into the production all the latest methods for purifying the raw material and producing a finished article of genuine merit.

An improved process of boiling is employed which ensures a perfect combination of all the materials and leaves no unsaponified matter in the finished article. Very great attention is paid to this, as upon it depends to a great extent a standard excellence of quality, insufficient boiling being largely answerable for the dirty appearance and irritating properties of many of the locally produced soaps, which destroy the natural properties of the skin and injure the beauty of the complexion, besides being positively dangerous to young children.

The aim of the proprietor has been to produce only the best grade soaps at a price within the reach of all, and judging by the cordial welcome accorded by the public to the articles now being turned out and the large increase of sales, he feels that his expectation has been to a large degree realized. The resources of the Factory are being taxed to their fullest extent to cope with the orders being received, while the utmost care is exercised to see that nothing but goods of first class quality are supplied.

The National toilet soaps are delightfully perfumed and in variety and price are unrivalled—the delicacy and permanence of their fragrance causing them to be much



THE NATIONAL SOAP FACTORY.

MA



THE NATIONAL SOAP FACTORY.

sought after by all persons of refined taste—a speciality is also made of transparent toilet soap.

The National medicated soaps are very carefully prepared, particular attention being paid to the mixing of the ingredients in their proper proportions and so ensuring an article which can be absolutely relied upon by the purchaser.

National soaps are free from moisture, and as such represent full value for the money, as they do not waste in the using.

Highest Awards have been obtained for National toilet soaps at exhibitions recently held in Calcutta, Madras, Nagpur, Khulna, Banjetea, etc.

The NEW MEDICAL HALL, Lower Main Road, Moulmein, Burma, Wholesale and Retail Chemists and Druggists. Established in the year 1902 by the sole proprietor, Mr. John Johnstone. The firm carry on a pharmaceutical chemists' business as well as that of druggists. They make a speciality of dispensing prescriptions, and deal generally in drugs, patent medicines, perfumery, toilet requisites, as well as photographic and other chemicals. A diplomaed medical adviser, Dr. Kanga, is in regular attendance daily between the hours of 8 and 10 A.M., when he is open to consultation free of charge. Dr. Kanga is considered one of the leading

physicians of Moulmein, where he has practised for a number of years.

He is a retired Civil Surgeon of the Burma Districts, and has great experience of the different maladies prevalent in Burma. He is very popular with all classes. Although but recently established, Mr. Johnstone, the proprietor, has so ably managed the concerns of the New Medical Hall, that it is now the leading Chemists and Druggists' business in the Moulmein district. The fine building in which the firm carries on its operations is a spacious structure of brick erected by the proprietor especially for his business. It is one of the ornaments of the town of Moulmein. It is large and cool and offers protection against climatic influences.

The firm is thus able to stock large quantities of drugs, and store them safely away without fear of deterioration. Mr. John Johnstone, the proprietor of the above business, was born at Bassein, Burma, in the year 1865, and educated at Mr. St. Clair's School, Moulmein. He gained his medical and chemical training with Dr. Wilke to whom he was apprenticed. In the year 1880 he obtained the appointment of Manager to the Town Dispensary. He managed this firm's business with success for the period of 22 years till the year 1902, when he retired for the purpose of starting his present business. The energy and ability which Mr. Johnstone has displayed in establishing his new firm in a foremost position in the short space of six years and with very little capital entitle him to congratulations. In addition to forwarding his firm's affairs he has purchased the land upon which he has erected the handsome premises of the new Medical



THE NEW MEDICAL HALL, MOULMEIN.

Hall, Mr. Johnstone has taken an interest in the public affairs of the town of Moulmein. His local standing and popularity is proved by the fact that he was



business affairs denied him the opportunity of standing for re-election. He has also been appointed Agent to the London and Lancashire Life Assurance Company, and the British American Fire Insurance Company, for the Moulmein District. His latest business venture is the promotion of the Tenasserim Motor-Bus Company, running a motor service between Moulmein and Mudon, a distance of some twenty miles, offering a great convenience to the travelling public of this district, enabling them to get easy access to Moulmein.

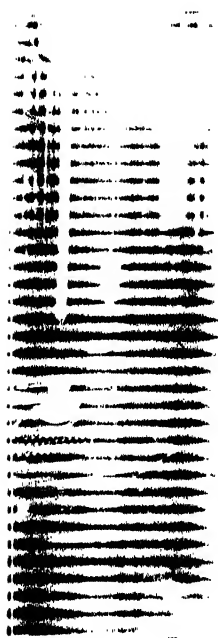
Mr. WYBRANDTS GEORGE OLPHERTS. C.E., Proprietor, Olpherts' Metallic Paint Works, Katni, Central Provinces, Honorary Magistrate and Justice of the Peace, came to India in the sixties as an Engineer on the East Indian Railway, and was employed between Allahabad and Jubbulpore on construction work. While upon this work he surveyed practically the whole of the Central Provinces. He was employed for about twenty years in the East Indian Railway and rose from an Assistant Engineer to Executive Engineer, Howrah. While in railway employ he invented the Denham and Olpherts' Sleeper, which is largely used by all the railways of India.

This invention saved the East Indian Railway many crores of rupees. The value of this invention may be gauged from the fact that in 1891 more than 5,000,000 pairs of these sleepers were in use on the Indian



Mr. W. G. OLPHERTS.

Government and Guaranteed Railways. They were found to provide a very smooth, easy-riding track, with a minimum jolting or rattling with trains travelling at high speed. They have no keys to work loose or break or for villagers to steal; they always preserve the correct gauge and required no adjusting, and the lower table of the rail does not get marked or indented as on tracks where it is supported by chairs, and they are consequently available for service after the upper table is worn out. The above is from an appreciation by Mr. Russell Tratman, C.E., of Washington (U.S.A.), in a report to the United States Government on the substitution of metal for wood in railroad ties. In a report by the Chief Engineer to the Agent of the E. I. Railway, dated 1878, Olpherts' Sleeper is described as stronger than any form of pot sleeper and better adapted to carry the heavy traffic of the E. I. Railway and better suited for varying forms of ballast. The bearing surface is 14 per cent. greater than that of the pot sleeper. In the famine of 1868-69 in the Central Provinces Mr. Olpherts did yeoman service.



THE NEW MEDICAL HALL, MOULMEIN.

He was specially mentioned in the Administration Report of that year by the Chief Commissioner, who stated that fortunately for the people in need of relief, the District Officers and the Administration there happened to be at Moorwarra, a railway colony at the head of which was Mr. Olpherts who had for some years taken an active interest in the country and the people. With his able assistance and supervision a complete system of relief, comprising works for the able bodied, intermediate labour for the convalescent, and poor-houses for the infirm, was rapidly set afoot. In the first report on the famine operations in the Jubbulpore District 1868-69, Mr. Olpherts again received commendation "for the noble manner in which he laboured at the risk of his life, in the cause of humanity, with cholera and small-pox raging, in Moorwarra, with his own servants dying one after the other in his house, although his own immediate superiors asked him to leave Moorwarra and go to a more healthy station." Captain Ward, the Deputy Commissioner, in his report said that to him, a District Officer, Mr. Olpherts' assistance was invaluable. Further that in laying out the lines of roads enumerated in the report and in watching their construction he had given the Government the benefit of his services as a highly skilled Engineer unpaid. His example too had been of the greatest use in inducing those who could afford it to come forward and assist their suffering brethren. The Government of the Central Provinces presented Mr. Olpherts with a gold watch and chain as a mark of appreciation for these services, the watch bearing an inscription to that effect. In presenting this token of regard the Secretary wrote to Mr. Olpherts "The thanks of the Government of India and of the Chief Commissioner were communicated to you at the time, but more satisfactory to yourself must be the knowledge of the gratitude with which you are remembered by the people of the tract of country which you so greatly benefited by your charitable labours. At the time Mr. Olpherts was surveying the Central Provinces for railway work he discovered the mineral resources of that country, and was the first to

bring them to the notice of Government. For this service he received the thanks of the Central Provinces Government. He himself worked mica, lime, iron, corundum, and yellow and red ochres in these provinces. Had he remained in the country to personally supervise the workings he would have become one of the richest men in India, but owing to the fact that he attempted to conduct the business from England through the medium of native agents, they never proved profitable to him with the exception of the ochre and red oxide works of which the management was taken up by his present Managing Partner, Mr.



MR. GEO. O. FORRESTER.

George T. O. Forrester, who has carried it on successfully. It is now contemplated to shortly form a large Company to develop and work this promising industries. The ochre and red oxide turned out at Olpherts' Metallic Paint Works have received very favourable reports from all quarters. As far back as 1871 it was reported in the P.W.D. that the cost of using the mineral paint was half that of the cheapest paint of any kind, and it was superior to any paint procurable in the bazaar and even to that procured from Bombay. The G. I. P. Railway contractors, Messrs. Glover & Co., reported in 1871 that Olpherts' oxide of iron paint, with which, according

to the terms of the contract, the Taptee New Viaduct was painted, gave every satisfaction as durable, cheaper than English paint and had more body in it. The yellow ochre was reported on by Messrs. Reeves & Sons of London, the well-known experts, and pronounced to contain more ferric oxide than French ochre and to be superior in covering power and possessed 50 per cent. more staining power. The Indian ochre was more "bulky" and had a cleaner and more brilliant colour. In experiments carried out in the Ghaziabad-Moradabad Railway in painting the Ganges Bridge at Garhmuktesar, Olpherts' red oxide proved the cheapest paint when compared with other standard paints giving equal results. It was but $\frac{1}{4}$ ths the cost of red lead. "The Indian Engineer" stated in 1905 that among the pigments used for protective coatings to girders the oxide of iron known as Olpherts' paint was probably the best of the class, and at the same time was one of the very few paints about which opinion is least divided. Some authorities state it is the best paint for all purposes. If procured in India and direct from the manufacturers or their Agents the paint is certain to be pure and will then be found both useful and economical. Its great advantage is that it exercises a preservative effect on the oil used as a vehicle. For wood it is probably the best coating in existence. Similar excellent reports were made by the North-Western Railway and the Oudh & Rohilkhand Railway. Mr. George Tyrone O. Forrester, Managing Partner, Olpherts' Metallic Paint Works, Katni, Central Provinces. Joined the Olpherts' Paint Works in 1904. Since taking over the management he has with energy and practical experience worked up the business to a highly successful condition. Mr. Forrester is a large landowner in Moorwarra and is very popular with the natives in that district, where he owns several villages. He is an Honorary Magistrate, a Municipal Commissioner, and a very keen shikari.

The ORIENTAL TELEPHONE AND ELECTRIC Company, Ltd., Rangoon. Head Office, Alderman's House, Bishopsgate, London, E.C. Manager in Burma, Mr. J. J. Bow-

man. "Telephone House," Rangoon. This Company, under a license from the Government of India, works the telephone service in the towns of Rangoon and Moulmein. Operations with these telephone services were first started in the year 1881, and for years the service was carried out with overhead single-line circuits. Owing, however, to the expansion of the system, it was decided by the Company to lay all its wires underground, and the work was commenced about two years ago. This conversion is now rapidly approaching completion, and very shortly all aerial wires will be done away with and a double-wire underground service be established throughout the installations. The Company, from its head office in London, controls the telephone services of Egypt, India, Burma, Straits Settlements, Mauritius, Hong-Kong, and other countries. The capital

admitted a partner. The firm do a considerable business in machinery, mining and mill stores, metals and hardware of all descriptions. They represent Messrs. Thos. Firth & Sons, Ltd., of Sheffield, England, manufacturers of Steel for all purposes, Forgings, Shoes and Dies, etc., in whose specialities they have established an important trade. They have a good connection in the supply of wire ropes, etc., for mining and other purposes, flexible steel wire ropes and wire ropes of all descriptions, in which they represent the well-known firm of manufacturers, Messrs. Allan Whyte & Co. of Rutherglen, Glasgow, for whom they are sole agents. In addition to this trade they undertake clearing and forwarding business and act in that capacity for Messrs. Whiteaway, Laidlaw & Co., and the Indian Aluminium Company, Ltd., of Madras. Generally their business connections in South India are extensive and valuable. Mr. Charles H. Parsons, the senior partner in the firm, has been a resident of Madras for some ten years. He came from Leicester, England, and was formerly connected with the late firm of Leighton & Co., General Merchants of Madras.

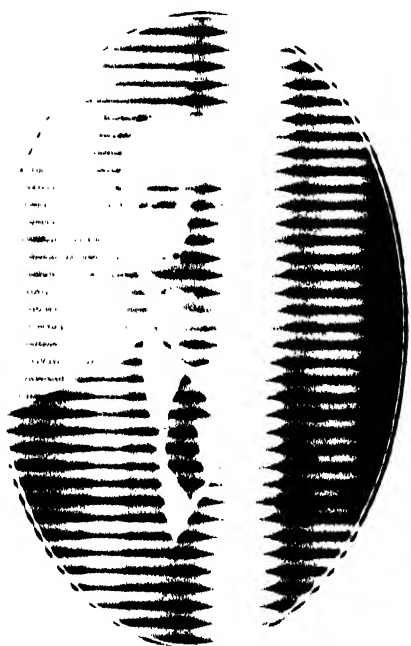
Byramjee & Co." During the year 1897 this firm was engaged in heavy famine relief works, and in addition worked the Kawardha Forests, turning out beams and sleepers, with



MR. BYRAMJEE PESTONJEE.

which they supplied the Bengal-Nagpur and Raipur-Dhamtari Railways. In 1899 the financial partner was relieved of his interest, and Mr. Byramjee and his two brothers remained the sole proprietors of the business. In 1900 they secured the contract for working the Bindra Nawagar Forests which is still being carried on by the firm. This partnership between Mr. Byramjee and his brothers was continued with mutual profit until the year 1907, when it was dissolved by mutual consent. Mr. Byramjee's brothers carried on the firm under the old designation, and Mr. Byramjee established on his own account a new concern under the style of "Byramjee Pestonjee & Co." At this period Mr. Byramjee turned his attention towards the mining industry and secured the services of a highly qualified Mining Engineer. He then started prospecting for manganese and other minerals in the Central Provinces. In 1906 he had been approved by the Chief Commissioner as a suitable person to be granted prospecting licenses. Mr. Byramjee succeeded in locating several deposits of manganese,

Byramjee & Co.,
and
business
by



carried it on
Mr. Wm. J.
exper-
was

Mr. BYRAMJEE PESTONJEE, Contractor, Nagpur, Central Provinces. Born at Neemuch, Central India, in the year 1872, and educated at the Anglo-Vernacular School in that city. He obtained a good knowledge of English, but left school early and proceeded to Nagpur in the year 1889 to join his father, who was in business as a contractor at that city. Three years later, in 1892, he went to Berar to take up certain Public Works contracts, which he executed satisfactorily. He was engaged in these for two years, and at the expiry of this period he went to Raipur where he engaged in railway contracts. In 1895 he established the firm of "Byramjee and Brothers" at Raipur, to deal with Railway and Public Works contracts. In 1897 he added to this business a shop for European goods and a coach-building and cabinet-making workshop, taking in his two brothers as partners, besides another partner who provided necessary capital. In 1898, the style of the firm was changed to "K.

coal, and other minerals in the Balaghat, Bhandara, Nagpur, Chanda and Jubbulpore districts of the Central Provinces, some of which are now being worked. The annual export of manganese comes to some thousands of tons through Messrs. Shaw, Wallace & Co. and Schröder Smidt & Co. Mr. Byramjee is a landed proprietor, and owns various villages in the Sihawa Circle of the Dhamtari Tahsil in the Raipur district, producing lac and rice for export. In addition to his other ventures Mr. Byramjee accepted from the Central Provinces Prospecting Syndicate the contract for working one of the largest manganese deposits in India, the Bhurveli Mines, Balaghat, and from Messrs. Tata, Sons & Co., of Bombay, the working of the Gudma Mines, and also from the Tata Iron & Steel Co., the Ramarana group contracts, which he is still carrying on. Mr. Byramjee has also found time to devote to public affairs. In 1904 he was elected a Municipal Councillor of the Raipur Municipality, and in the following year was appointed an Honorary Magistrate by Government. He shifted his head-quarters to Nagpur in 1908 on persuasion of his several friends.

Messrs. F. T. PETERS & CO., Brigade Road, Bangalore, Cycle, Carriage and Motor works and Livery Stable-keepers. The sole pro-



Mr. F. T. PETERS.

prietor, Mr. F. T. Peters, established the cycle repairing department in 1901 on a small scale. Since then, the works have not only been considerably expanded but the above-mentioned other departments also added to meet the public demands. They not only undertake every description of cycle repairing, but also import and deal largely in all kinds and makes of cycles and accessories, of which a large stock is always kept in hand. Other branches of mechanical work are also undertaken. In the carriage works every description of carriages are built, as well as repaired. The motor garage supplies the public with motors on hire, motor car and cycle repairing is undertaken, and motor accessories are stocked. In the livery stables excellent rubber-tired Victoria turn-outs are hired out to the public at all hours of the day and night. These departments are personally supervised by Mr. F. T. Peters, assisted by Mr. John Peters, in charge of the workshop, and by Mr. U. S. Johns, the Manager, in charge of the office. The firm have branches at Mysore and Agencies at Calicut and Tumkur, and their business connections are extended over the whole of Mysore Province and Southern India.

Mr. Frederick Theodore Peters, the sole proprietor, was born in 1877 and educated at the High School, Mangalore. In 1895, he joined the firm of Messrs. C. B. Oakeley & Co., and served an apprenticeship of three years. He then joined Messrs. A. S. Andrews & Co., and remained with them for a period of three years. Having thus gained a practical experience of cycle and mechanical work, he started the cycle repairing shop, with the kind help of a friend, in 1901, the nucleus of the present firm. As the public demand and confidence increased, owing to the excellence of the work turned out, it was found necessary to extend the premises. Mr. Peters is an active member of the Bangalore Rifle Volunteers, and of the Bangalore Trades Association.

Mr. M. PURUSHOTHAM ANANDA GIRI GOSWAMY, Banker, Contractor, and Merchant, Doddapett, Mysore. The firm was founded about a hundred years ago by the late Mr. Narashim Giri. General

banking is the principal business of the firm which is carried on in purely Indian style, and the operations extend to all parts of the Mysore State, as well as in Mysore



Mr. M. P. A. GIRI GOSWAMY.

City itself. They do a large business in money advances to suitable clients, the usual rate of interest being 12 per cent. per annum. They are also builders, and take up building contracts for the Public Works Department of the Mysore Government, as well as for private firms and individuals. They have also a considerable business in general merchandise, importing from Kashmir, Benares, and Amritsar, cloths, shawls, etc. They also hold the contract for the supply and sale of toddy to the city of Mysore, and since they took up this business the Government of the State have benefited to the extent of some Rs. 40,000 in revenue, and the business is more efficiently managed than in former years. Mr. M. P. A. Giri Goswamy was born in the Punjab in the year 1881 and is the son of Vedamurty Sukhadayal Misra, a Saraswathi Brahmin and a direct descendant of the great reformer Sankacharya, who was the founder of the Adyita System of Philosophy. For the teaching and propagation of this Philosophy four "mutts" or monasteries were established by Sri Sankacharya at four important

centres in India. These are known by the names of Joeshy-mutt, Goverdhan-mutt, Sarda-mutt and Sringeri-mutt. Mr. Purushotham Annada was educated at Benares and Mysore, and started in business on completing his education. He has landed possessions on which he pays an assessment of about Rs. 4,500 annually in the Mysore district only. He owns about 60 houses in the City of Mysore, bringing in a rental of between six and seven hundred rupees. He takes great interest in all matters affecting the State of Mysore. He is also a landed proprietor in Bangalore and the Kolar Gold Fields, and has branches of his business established at Kolar Gold Fields, Benares, Poona and Conjevaram.

Messrs. E. PLOMER & CO., Chemists and Druggists, Manufacturers of Aërated Waters and General Merchants, Lahore and Simla. The Simla branch of this well-known business

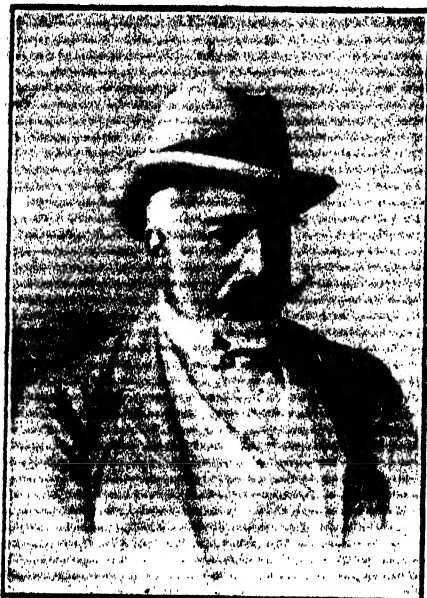
was founded by Mr. E. Plomer in pre-mutiny days. He carried it on for many years, till in 1873 he sold it to Mr. T. Bliss, who had originally joined him as an employee. Mr. Bliss added the Lahore branch, which he bought from the Punjab Trading Company in 1877, who had obtained it by purchase from Messrs. Peake, Allen & Co., the original founders. The firm, under the able management of Mr. Bliss and those now associated with him, have developed the largest business as retail and wholesale Chemists in the Punjab. Messrs. E. Plomer & Co. have been appointed contractors to the Civil Veterinary Department, and are the largest importers of veterinary instruments and appliances in India. They have also secured the contract for the supply of medicines and instruments for all civil hospitals and dispensaries in the Punjab.

Mr. THOMAS BLISS, of Messrs. E. Plomer & Co., was born in Morayshire, Scotland, and served his apprenticeship to a chemist in Nairne. He left England in 1863, and worked his passage to Calcutta in a sailing vessel as a sailor before the mast, deciding to take his chance of employment on arrival. He obtained a situation with Messrs. Scott Thomson & Co., Chemists of Calcutta, and served with this firm till 1869, when he joined Mr. E. Plomer in his Simla business. After four years he was able to buy out Mr. Plomer and acquire the sole interest in the firm. In 1877, he added the Lahore business by purchase from the Punjab Trading Company. In 1899, he took Mr. William Cotton into partnership. This gentleman had joined Mr. Bliss as an assistant, while still a lad, in the year 1883. His steady application to business won the confidence of his employer, who



Messrs. E. PLOMER & CO.'S PREMISES, LAHORE.

advanced him to the management of the Lahore branch in 1893, and subsequently gave him a partner-



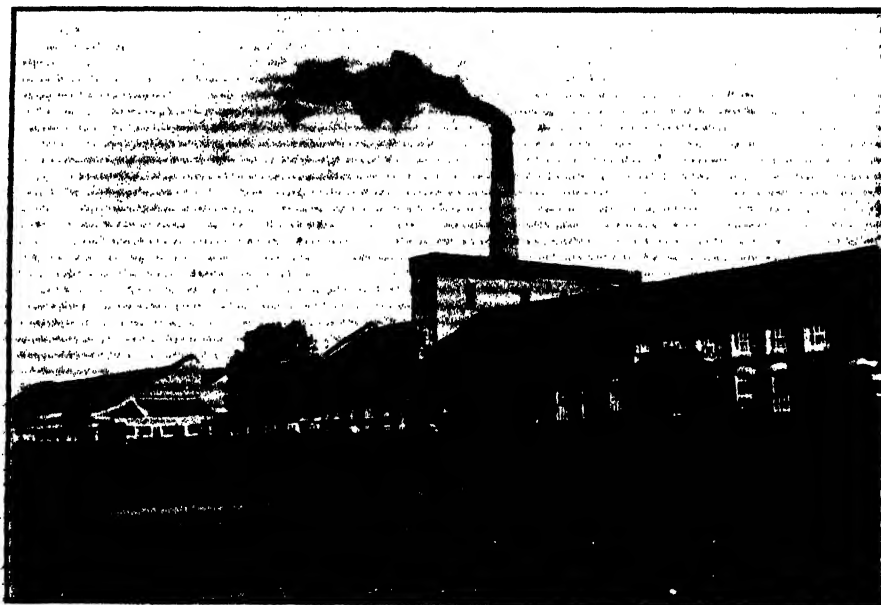
Mr. TOM BLISS.

ship. Mr. Cotton is a prominent member of the Simla Volunteers.

The PULGAON SPINNING, WEAVING AND MANUFACTURING Co., Ltd. This Company was inaugurated in May of the year 1889, when certain leading gentlemen of the Nagpur and Wardha Districts collaborated for the purpose of starting mills in the vicinity. The chief promoters of the enterprise were Messrs. Narayan Ramchandra Sohoni, R. B. Bapur Rao Patwardhan, R. B. Bharge Rao Gadgil, Messrs. Keshao Rao M. Kavley and Krishna Rao Phatak, Pleader. It was decided to form a limited company with a capital of Rs. 5,00,000 divided into one thousand shares of Rs. 500 each and the project was accordingly carried into effect. Mr. Isaac Alcock, of the well-known firm of Messrs. Alcock, Ashdown & Co. of Bombay, was appointed Consulting Engineer to the new company. Modern machinery for spinning cotton yarns was procured from Messrs. Platt Bros. & Co., of Oldham, England, and in the year 1892, all preliminaries having been com-

pleted, the factory commenced operations. At the outset the factory was brought into work with 10,000 spindles, and spinning operations only were carried on until the year 1902, when a weaving shed with about 162 looms was added and weaving was started. From time to time the plant has been extended until at the present time there are 18,000 spindles in operation. Situated in the heart of the cotton producing district the raw material is abundant in the neighbourhood of the factory. The mills spin from No. 6 to No. 60 from cotton grown in the Wardha and Nagpur districts and Berar. No foreign yarns are utilised in the weaving operations, the spinning mill providing all that is required. The management of the mills is entrusted to a Sub-Committee consisting of four of the Directors of the Company, which is re-constituted year by year. This Sub-Committee give their services free and have throughout the Company's existence been doing the work which is carried out by Agents in the case of Bombay Mill Companies. The actual working of the factory is supervised by a Manager who is a passed student of the Victoria Jubilee Technical Institute of Bombay. The whole of the staff including the Spinning Master and his

Assistants, the Engineer and his Assistants, the Weighing Master and his Assistants, and also the Secretary and Manager, are Hindus. The policy of the Directors of the Company has been to employ, as far as possible, students who have passed out of the Victoria Jubilee Technical Institute of Bombay. In the extensive grounds attached to the Factory the Company have provided quarters for certain of their officers and also cottages for a large number of their operatives. A cotton ginning factory has been now added to the other resources of the mills. Also a dye house where they dye their own yarns and a bleaching plant on a moderate scale. The entire output of yarns and cloth is disposed of within the Central Provinces, and thus the concern is a purely Swadeshi affair of the right kind. The operations of the Company have met with striking success. The whole of the capital is paid-up, and during the years the mills have been in operation regular dividends ranging from four to twelve per cent. have been paid, and, as a matter of fact, the whole of the capital has been returned to the shareholders in the shape of dividends and at the same time a deterioration and reserve fund to the extent of Rs. 5,00,000 has been built up.



THE PULGAON MILLS, NAGPUR.

They have also established a provident and gratuity fund for the benefit of their operatives, which is altogether separated from the mill property, though remaining under the control of the Board of Directors. A scholarship to aid technical education has also been established by the Board of Directors. At a general meeting of the shareholders held on May 8th, 1904, the following resolution was adopted unanimously :—

"The General Meeting unanimously resolve to recognize the services rendered by Mr. Krishna Rao Phatak, one of the Directors of the Company since the formation of the Company in 1889. The services which were rendered at great sacrifice of his valuable time and free of charge, and which have mainly brought about the present good condition of the Mill, it was decided that a permanent scholarship carrying Rs. 20 per month be

...from the fund and technical assistance from the Victoria Foundation to help in the way of assistance on the ...

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McKENNA & SONS
LTD., 10, Abchurch Lane,
London, E.C. 4.

on the other hand, Australia, the United States, Canada, and the United Kingdom are the only countries in the world that have a significant presence in the global market for oil.

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"Trocadero" in London, which is generally considered to be the largest and best managed restaurant in the world. He was employed at the "Trocadero" for over four years from 1900 to 1905 and left it to take up managerial duties at the "Grand Hotel, Weber," at Antwerp, Belgium, and the "Hotel Metropole," St. Moritz, Switzerland, at both of which establishments he was most successful. In 1907 Messrs. D'Angelis &



Mr. JULES RADESCO.

Sons secured Mr. Radesco's services as Manager to their "Hotel D'Angelis" at Madras and he came to India in the same year. He has successfully promoted the reputation of the Hotel as one of the best equipped and managed establishments in the East.

The RANGOON GAZETTE. Although the *Rangoon Gazette* was only started in 1861, it was under conditions so unlike those of the present day that to understand its early struggles one must endeavour to realise something of the early history of Burma under British rule. After the first Burmese war, which began in 1824, the Indian Government annexed the provinces of Arakan and Tenasserim. The former was within easy reach of India, but Tenasserim was remote and isolated. The communication with Calcutta was by small sailing

vessels and so was infrequent and uncertain. The British troops in Moulmein were separated only by the river from the Burmese garrison in Martaban, and the timber traders had to reckon with the vagaries of Burmese officials beyond the border. Nevertheless the trade in timber, on which the welfare of Moulmein depended, was carried on with success, and in time the enterprising inhabitants began to build ships in considerable numbers. The European residents spoke of themselves as "colonists" and seem to have had many of the characteristics of frontier colonials. The *Moulmein Chronicle*, the first newspaper in Burma, which was started on 15th April 1837, and carried on for several years, a small four-page demy quarto, published once a week, gives a vivid impression of the life led in those remote days.

The second Burmese war of 1852, and the consequent annexation of Pegu, bringing the whole coast line of Burma under British rule, altered the conditions very materially. Moulmein was no longer an isolated outpost; the power and still more the prestige of the Burmese kings were greatly reduced, so their vagaries were no longer the constant menace they had formerly been to the small British "colony" in Moulmein. It must be remembered, however, that until the annexation of Upper Burma in 1886, British Burma remained only a coast line, about a thousand miles in length but of very limited breadth. All the country behind that coast line continued under a government which gave no security of life and property, no communications, and no encouragement to development of its resources; so there could be no adequate growth until British rule was established over the whole country. British Burma did grow as far as a mere coast line could grow, but the real advance of the country as a whole did not begin until after Upper Burma had been annexed and lawlessness and anarchy had been put down in it. While Rangoon remained under the Burmese Government no one, of course, was fool-hardy enough to start a newspaper. One Rangoon merchant, Mr. Crisp, did venture to criticise the doings of the Burmese Government in a letter

to a Calcutta newspaper: for this he was banished from Burmese territory and had to transfer his business to Moulmein. Almost immediately after the annexation, however, one or more newspapers were started in Rangoon. This is the more remarkable as it was then a very small place compared to Moulmein, and no one could have foreseen that the rice trade of Rangoon would grow so rapidly as it did. With security of life and property established under the British Government, the extensive rice fields of the new province were rapidly brought under cultivation by the inhabitants, and by numbers of the Burmese King's subjects who managed to escape across the frontier and to settle with their families in British territory. The only record now extant, however, of the earliest journalistic attempts in Rangoon, seems to be the following extract from a private diary kept by Mr. John McArthur, who was a contributor to the *Rangoon Gazette* from its start in 1861 to his death in 1904. In the year 1853 he wrote: "The *Rangoon Chronicle* was the first newspaper in Rangoon. It was started by Mr. H. W. Lewis, a lawyer from Moulmein, who dabbled in newspapers there. It was edited by anyone who chose to write. Mr. Fowle once inveigled me into writing for it."

This paper, "edited by anyone who chose to write," seems to have existed for some years, but it had certainly disappeared before 1861. Then the only newspaper in existence was the *Rangoon Times* which had been started in 1859. Its editor was Dr. Dawson who is said to have been connected in some way with the American Baptist Mission. This gentleman's editing of the paper was so distasteful to the mercantile community that they held a meeting to consider what was to be done. The following gentlemen met and decided to start a paper which would give expression to the views of the mercantile community:—Mr. Tait, Agent of the British India Steam Navigation Co.; Mr. George Bulloch, of Messrs. Bulloch Bros. & Co.; Mr. Hilton, of Messrs. Mohr Bros. & Co.; Mr. John Barlas, of Messrs. Todd Findlay & Co.; and

Mr. Malcus Agabeg. Messrs. Wallace Brothers showed their sympathy by securing for the new paper a small press which had formerly been used for an advertising sheet. The *Rangoon Gazette* was thus started by the leading members of the mercantile community. The first number appeared on Tuesday, 5th March 1861. It was only a little more ambitious than the *Moulmein Chronicle* of 1837, being a four-page crown folio, published twice a week. Mr. George Curran, an advocate, was the first editor, and Mr. E. Richardson the first manager. Mr. Curran and Mr. McArthur contributed most of the matter for the first few numbers, but others gradually came forward, Mr. Richardson, Mr. Verrall, Mr. Tait, Mr. Barlas, and the Cantonment Chaplain, Mr. Poynder. The Commissioner, Sir Arthur Phayre, contributed some articles on cotton cultivation in Burma.

For the first few years the records throw very little light on its history. Mr. Richardson left soon after it was fairly started, and Mr. Caddy became both editor and manager. He was also a shareholder, Mr. Curran retaining a pecuniary interest as well and continuing to contribute articles for the paper. Everything seems to have prospered until Mr. Caddy's death when the whole control fell to Mr. Chanter who had served under him. This gentleman's sudden disappearance in 1867 or 1868 left the proprietors in difficulties, financial and otherwise. Mr. Alexander Gair then took over the whole concern, but in 1869 he had to leave. He sold the business including machinery and stock to Mr. E. G. Man, a barrister, who bought it "in trust for those concerned." The names of these are not disclosed, but in 1871 Mr. Man sold the business on their behalf to Mr. Charles Pascal. This gentleman, however, had borrowed part of the purchase-money, and not being able to repay the loan, the business was sold by auction on 31st January 1872, the buyers being Messrs. Balthazar & Son, who transferred it to Mr. Malcus Agabeg, one of the original founders. He died very shortly afterwards, and in January 1873 the business was

transferred by his executors to his brother, Mr. Paul Agabeg, to whom it had been left by the will of Mr. Malcus Agabeg. From Mr. Paul Agabeg, the business passed into the hands of a partnership of six persons, four of whom were lawyers. One of the latter, Mr. T. D. Mitchell, a barrister, who edited the paper, bought out some of the other shareholders, and some shares were also bought by Mr. John A. Hannay. Eventually in August 1880, Mr. Hannay became sole proprietor, by the purchase from Mr. Mitchell's executors of his remaining interest in the business. For three years Mr. Hannay remained the sole proprietor, but on 1st December 1883, he sold a half share to Mr. David M. Gray.

On 31st July 1890 Mr. Gray bought out Mr. Hannay and admitted the present proprietors, Mr. John Stuart, Mr. Frank McCarthy, and Mr. V. J. Mariano, to a share in the business. Mr. Stuart had written constantly for the paper from the end of 1883; Mr. McCarthy had been the editor from 1889; and Mr. Mariano had been in the service of the press from 1871. For two years Mr. Gray continued to hold a share in the business, though he lived in Europe and left the management to the three junior partners. On 31st July 1893 an arrangement was made to buy out Mr. Gray, the other three partners taking over the whole business from that date. Mr. Gray died in 1896. On 1st December 1907 three new partners were admitted, Mr. Herbert Smiles who had been on the editorial staff for three years; Mr. G. H. M. Kelly, and Mr. Frank Stuart, who had been in the service of the press for fourteen and for six years respectively. The *Rangoon Gazette* has grown with the progress of Burma and the four-page crown folio, published twice a week of 1861, is now a daily paper of 24 to 32 pages crown size. About thirty years ago the general printing business known as the British Burma Press was bought by the proprietors of the *Rangoon Gazette* and has been worked by them ever since. A Burmese paper, called *The Friend of Burma*, was started by Mr. Hannay, and it is now a daily paper of eighteen pages royal folio size. The one small press of 1861 is now represented by 28 presses ranging

from platen machines to double royal cylinders. The press has its own type foundry and employs over three hundred and fifty men; besides the usual miscellaneous printing, a considerable amount of business is done in publishing vernacular and Anglo-vernacular books, and maps for use in the schools of Burma. Early in 1902 a Burmese newspaper, the *Mandalay Times*, and printing business in Mandalay were purchased and are still run in connection with the *Rangoon Gazette*. In the press in Mandalay a number of vernacular books are published.

Babu BEEPIN KRISTO ROY, Stevedore and Naval Contractor, Calcutta, is the son of the late Babu Krishna Kanto Roy. He was born in 1853, at Dasghara, a village near Tarkeswar, his family being one of the oldest and most respected gostipotis in Bengal, and lineal descendants of Naran Das Pal

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the firm, which he has since conducted with marked success. He now owns several Zemindaries in the districts of Hooghly and Burd-

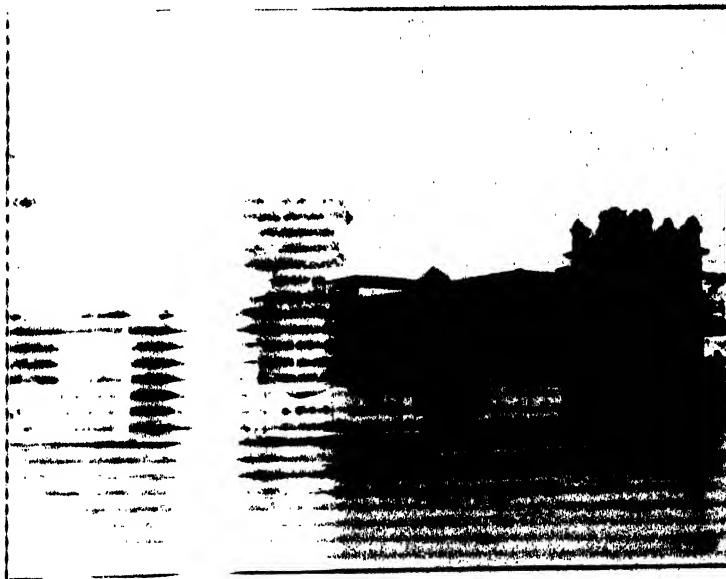


Babu BEEPIN KRISTO ROY.

wan, besides extensive landed property in and out of town. When he performed the *Syadh* ceremony for his late parents, Mr. Roy spent upwards of a lakh of rupees in feeding the poor and the giving of alms and presents to Brahmins and Adhyapocks throughout Bengal.

As a Zemindar he is respected by his ryots, and during the years of scarcity that have of late prevailed in Bengal he has remitted large amounts due to him by his tenants, in order to help them in their necessity. He is known throughout the district for his charities, and does much to relieve the suffering poor. He has founded a minor school at Puttuldanga and a charitable dispensary and Atithsala in his native village, where he owns a palatial residence, and celebrates all the Pujas with much ceremony. At the same time, as a keen man of business, he has acquired much wealth through his connexion with the mercantile marine, and has been successful in his investments. He was contractor and sole stevedore for Messrs. Ralli Bros. for nearly twenty years, besides being employed by the Harrison Line, the British India, and the China Mail Steamers. At present he is employed by the Bucknall Line, and also secures a large share of the business of outside lines. His offices are at 4, Commercial Buildings, Calcutta, and in his business he is assisted by his eldest son, Mr. N. B. Roy, and his brother-in-law, Mr. A. C. Ghosh.

Messrs. RUSHALL & Co., Stevedores and Contractors, Rangoon. This is an old established business, having been originally constituted in the year 1864 by Mr. Antoine Swaries. This gentleman carried on the affairs of his firm until his death, which occurred in the year 1890. During the twenty-four years during which Mr. Antoine Swaries conducted the business he enlarged its reputation and founded it firmly as a responsible and reliable firm. At his death Mrs. Swaries continued the business, paying personal attention to its affairs, assisted by Mr. John A. Gordon. At his death the business was carried on by four partners and being found unsatisfactory was mutually dissolved. This being satisfactorily effected, the business was started afresh in April 1907, in partnership with Mrs. Swaries, under its present style and title. The firm undertake the loading and discharging of vessels of all descriptions, disburse ships, supply labour for the Port Commissioners and to



DASGHARA HOUSE OF BABU BEEPIN KRISTO ROY.

the wharfs, and in general undertake all branches of the stevedoring business. They are very large employers of labour giving work from time to time to so many as 3,000 to 4,000 men. The present partners of the firm are Captain Richard Boswell Rushall and Mrs C. S. Swaries. Captain Rushall is an old officer of the Irrawaddy Flotilla Company, with which concern he was connected for a period of 20 years, having been for fourteen years in command of different steamers belonging to that Company. He resigned the Irrawaddy service for the purpose of taking up his present business.

MANECKJEE FRAMJEE HORMUSJEE SETTNA, Merchant, Waudby Road, Bombay. Born on June 8, 1867, and educated at Proprietary High School, Bombay, where he pursued his studies under the famous Parsee Educationalist, Mr. Hormusjee Jehangir. In 1888 he passed the Matriculation Examination at the Bombay University. He attended a course of lectures in languages and Roman History in St. Xavier's College



MR. MANECKJEE F. H. SETTNA.

under the well-known Reverend Fathers Hamilton and Bocham. He commenced his career as a business man in the year 1896. Mr. Settina is a Director of the

Hindustan Pressing and Manufacturing Company, Ltd., and has acted as Chairman of the Company on various occasions. He is also one of the Agents for the Company. He also holds the position of Director in the Edward Manufacturing Company, Ltd., and is Chairman of the South India and Mysore Manufacturing Company, Ltd., of Bombay. He is a member of the Society of Science, Art and Literature, London, and became a member of the Royal Society for the encouragement of Arts, Manufactures and Commerce in March 1897.

Messrs. SEYMOUR & Company, Ship-Chandlers, General Merchants and Contractors, 6, Strand Road, Rangoon, Burma. This firm was



The late Mr. T. N. SEYMOUR.

established in the year 1886, by the late Mr. T. N. Seymour. The principal business of Messrs. Seymour & Co. is that of ship-chandlers, and they supply all kinds of stores and requisites for the shipping trade. They also carry on a considerable business in engineers' tools, metals, paints, hardware and mill stores, and lamps for mineral oil and electricity. They undertake Marine and Port Commissioners' contracts, Public Works Department contracts for the Government of

Burma, and also do a large commission business of all descriptions. Messrs. Seymour & Co. have agents to effect their business in London and New York. The sole proprietor of the firm is Mrs. T. N. Seymour. Mr. Charles Percival Seymour, Manager of the firm of Messrs. Seymour & Co., was born in Burma in the year 1876. He was sent to India for his education which he received at St. George's College, Mussoorie. At the early age of 17 while still at school Mr. C. P. Seymour had the misfortune to lose his father, who died in the year 1893. Despite his youth he returned at once to Rangoon and entered the business, which he carried on with ability, gaining his business experience and commercial education at the same time. By his keen enterprise and energy he has successfully managed the business of Seymour & Co., for the benefit of his mother, Mrs. T. N. Seymour, and family, ever since.

Messrs. SIMPSON & Co., Carriage Builders, Harness-makers, Billiard-table Manufacturers, and Motor Engineers, Madras. This firm in which the present partners are Mr. George Underhill Cuddon and Mr. Percival Bligh, was established in Madras by Mr. Simpson in 1840. Since those days of small beginnings, the progress made by this firm has been continuous and rapid. It is now one of the largest factories for building carriages in the East, and it takes its position among the leading European business enterprises in the Southern Presidency, with Head Office and Factory in Madras and Branches and Agencies in Hyderabad, Rangoon, Bombay, Penang and Singapore. The present partners took over the business in 1898, and both being eminently practical men, great strides in expansion have taken place during the past ten years, and their carriages bearing the well-known name of this firm are now to be found as far north as Cashmere and as far east as Hong-Kong. The firm are Carriage Builders, by special warrant of appointment to His Majesty the King-Emperor in India, also to H. H. the Nizam of Hyderabad, the Maharajas of Mysore, Travancore, and most of the Ruling and Feudatory

Chiefs of India. At various Exhibitions, both in London and the East, they have been awarded Gold Medals and Diplomas, and it is a fact worthy of note that the firm were among the Exhibitors at the First International Exhibition held in London in 1851, when they were awarded a Gold Medal.

A walk round their extensive factory which covers 5 acres, and where upward of 500 hands are employed, is quite a revelation. Every detail of the work is carried out on the premises, and it is believed to be the only factory in the world where every part of a carriage is made by native labour, of course under the supervision of experienced

the well-known forests of Mysore, Ceylon, and the Straits Settlements.

The Billiard-table department has done much creditable work, and the designs of various tables with the elaborate carvings of the Madrassi are very handsome. A great speciality is the Billiard cloth which is specially manufactured by a West of England firm for Messrs. Simpson & Co., and it is of the finest quality.

Messrs. Simpson & Co. were the first to seriously take up Motor Engineering, and this department is under the direct supervision of an expert engineer. They have always a large number of cars on view. In various Indian trials and competitions, their reputation has been enhanced, by winning gold medals and silver cups, and by the cars they represent, which show that their selection is to be relied upon under Indian conditions.

Our visit left a very striking impression, as it shows to what efficiency the Indian artisan can attain under competent supervision.

Mr. WALTER DONALD SMITH, *Captain, Madras Volunteer Guards*, Managing Director of Messrs. W. E. Smith & Co., Limited, and Sheriff of Madras. Mr. Smith was born in Ootacamund, Madras Presidency, in 1865, and comes of an old and highly respected family, whose father, Mr. W. E. Smith, founded the firm which bears that name at Madras, and whose members have established for themselves a wide reputation for business capacity and enterprise. Mr. Smith received his early education at St. Andrew's School and the Doveton College, Madras, and later, having qualified at the Madras Medical College, entered the business of his life as a Chemist and Druggist's assistant at the early age of 14 in one of the branches of his father's business. By dint of perseverance and hard work he gradually rose step by step in his profession till after some years he was able to take his place in the firm, along with his father and brother. The business of the firm in the meanwhile had been slowly but surely advancing in size and gaining popularity. Branches were established in different parts of the city and these enlarged from time

to time. The Head Office on Mount Road, Madras, was eventually found quite inadequate to meet its requirements, and the erection of a building on more modern and up-to-date lines was considered necessary. The construction of the present commodious and handsome building was to a great extent due to Mr. Donald Smith, he having by this time become a partner in the business. Shortly afterwards it was considered necessary to convert the firm, the business of which had by this time reached large proportions, into a limited liability company. This was done, and Mr. W. Donald Smith with his brother, Mr. W. Fraser Smith, became



Mr. W. D. SMITH.



Managing Directors. It is unnecessary to follow further the course of the now well-known firm of Messrs. W. E. Smith & Co., Ltd. Suffice it to say that it stands unrivalled in Southern India as a Pharmaceutical agency, and is, it is believed, second to none in all India.

Mr. Donald Smith is a very busy man, but somehow manages to find time to devote to public matters. Besides being a Director of the Equitable Life Insurance Company, Mr. Smith is connected with many institutions in the City of Madras in various capacities. He has been a Commissioner of the Corporation of Madras for the past nine years, and in a reference made to his

work as such in March last, the *Madras Mail* said that "in this capacity he proved himself level-headed, shrewd and devoted to the interests of his constituents."

Mr. Smith is a great lover of sport, he is a prominent member of the South Indian Athletic Association and the Madras Race Club, being an ardent supporter of all institutions that have for their object *mens sana in corpore sano*. He has been actively associated with volunteering for many years. Enlisting in the Neilgherry Volunteer Rifles at the age of 14, he is now the senior Captain of the Madras Volunteer Guards—the *doyen* of Volunteer Corps in India. An excellent rifle shot himself, Mr. Smith has infused his personality in the Company he commands, so that "B," or the Trades Company, now occupies the foremost position in the Regiment in rifle shooting. He is a well-known figure at meetings of the Southern India Rifle Association at Bangalore to which he has taken several teams of the M. V. Guards, and the large number of medals, cups and other prizes he possesses is ample testimony to his prowess. Mr. Donald Smith proceeded at his own expense to England on the occasion of the Coronation of H. M. King Edward VII and took part in the various military manœuvres and other exercises that formed a part of the ceremonies connected therewith. Some four years ago Mr. Smith while at Home captained an Indian Rifle Team which competed at Bisley, shooting in it himself. The team gave a very fair account of itself, gaining third place on the list for the Kolhapore Cup and finishing just 15 points behind the Mother Country, while some of the members won prizes in the individual contests.

Mr. Donald Smith is a zealous Mason, having joined the Fraternity about six years ago in Lodge Pitt Macdonald of which he is at present Junior Warden.

Mr. Donald Smith holds the honourable position of Sheriff of Madras, which proud distinction was conferred on him by H. E. Sir Arthur Lawley, Governor of Madras, in December 1907 and re-appointed to the same office in 1908. When we recall the fact that about ten years ago previously this unique

office was held by his father, it will be evident that the son is following in his father's footsteps and worthily maintaining the family traditions. For the first time in the history of the Shrievalty Mr. Smith inaugurated a Sheriff's Banquet which was held on 3rd March 1908 and at which he entertained H. E. the Governor, the Judges of the High Court, Members of the Council, and a host of other prominent citizens of Madras. His Excellency Sir Arthur Lawley, in proposing the toast of the "first Citizen of Madras," made a highly eulogistic speech in which he referred to the occasion as a "most unusual" one and to the Shrievalty as being "held by one whose main characteristic has always been a sense of public duty." In thanking Mr. Smith "most sincerely" for the "splendid hospitality" extended to himself and those present, His Excellency wished him "long life and prosperity and every success, not only in his present office but in the part which I know he is destined to play as a leading Citizen of Madras."

Mr. C. SOON THIN, Sole Proprietor, Burmese Curio Depôt, General Merchant, Commission Agent and Contractor, Dealer in, and Manufacturer of, Burmese wood carvings, silverware, embroidery, Burmese silk and sundry curios and precious stones, Mandalay. Mr. Soon Thin commenced business at Mandalay in 1903, when he opened the Burmese Curio Depôt, doing a large business in Burmese curios which he collected from all parts of the country. He also carries on business as Contractor to the Burma Mines, Railways, and Smelting Company, for the supply of food-stuffs and limestone, and in this department he gives employment to about 500 men. He also does commission work as an agent, in which capacity he does a large business in timber with Jardine, Skinner & Co., Calcutta, and Best & Co. and King & Co., Madras. Mr. Soon Thin also acts as Managing Agent to the Oo Doung Saw Mill of the Burma Timber Trading Company, where some 50 hands are employed under his direction. The other agencies which he controls are the Royal Insurance Company, Ltd.; the State In-

surance Co.; the Standard Life Assurance Co.; the City of Glasgow Life, and the China Mutual. Mr. Soon Thin was born at Moulmein, Burma, where he was educated. He served with Messrs. Thos. Cock & Son as Head Accountant and with the Bombay-Burma Trading Corporation, Ltd., as Head Book-keeper, prior to setting up in business for himself.

SOUTH INDIA & MYSORE MANUFACTURING COMPANY, Ltd. Agents Messrs. Nadirshaw H. Belgaumwala & Co., Cox's Building, Hornby Road, Bombay. The Company carry on business as Cotton Pressers and Ginners.

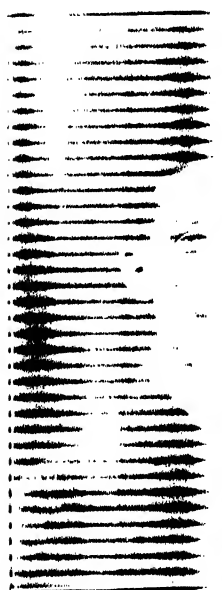


MR. N. H. BELGAUMWALA.

Ice and Aerated Water Manufacturers, and Dealers in New and Second Hand Machinery. They own a Cotton Ginning Factory at Annigeri and another at Yelvegi, two Cotton Pressing Factories, one at Hubli and one at Davangeri. Two Ice Factories, one at Hubli and another at Deolali, where Aerated Waters are also manufactured. Their Machinery Mart is established at Hubli. All these concerns are running successfully and create good profits for the Company. The above properties which have been acquired by the Company were originally established and brought into successful working order by Mr. Nadirshaw H. Belgaumwala. He was born and educated at

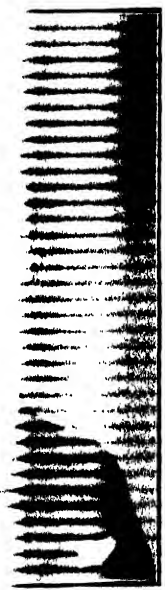
Bombay where he started in business for himself early in life. His beginnings were in a small way with very limited capital, but by industry and ability he put together the several business concerns enumerated above. In order to develop and expand the business still further Mr. Belgaumwala thought it advisable to float a Company. The shares in the same were quickly taken up and it was not long before the whole of the plant and good-will of various concerns were acquired by the new Company, which is now running them with great profit. The original proprietor's firm, Messrs. Nadirshaw H. Belgaumwala & Co., were appointed Agents to the Company in order to secure continuity of policy and obtain the benefit of the experience of Mr. Belgaumwala and his staff in the management of the business under its new proprietorship.

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plant. They import all kinds of electrical machinery and supplies, and hold sole agencies for well-known houses in their own line at home.

Mr. George Ogilvie Stewart was born in Stirling in 1879 and was educated at the High School there, which he left in 1895 to enter the service of Messrs. Duncan Stewart & Co., Ltd., London Road Ironworks, Glasgow, as an apprentice engineer, where he remained until July 1899. While in Glasgow he gained a sound practical experience of heavy engineering work, and being on the erecting staff for some considerable time, he travelled abroad on several occasions to supervise contracts then held by Messrs. D. Stewart & Co. During his apprenticeship he took courses at the Glasgow & West of Scotland Technical College, and thus made himself theoretically efficient in all subjects pertaining to his profession. Following on this he went to Edinburgh and joined the service of Messrs. D. Bruce Peebles & Co., Ltd., in order to gain experience in electrical engineering, and finally superintended the laying down of several large power plants. After leaving Messrs. Peebles & Co., he studied for a year at the Heriot Watt College, Edinburgh, and passed in Advanced Engineering, with honours in Electricity. Subsequently he went to Manchester where he assisted Mr. Hillier, M.I.M.E., M.I.C.E., of the National Boiler Insurance Co., Ltd., in survey, valuating and consulting work, for a period of two years. Immediately following on this he proceeded to Burma where he acted as Electrical Engineer to Messrs. Bulloch Bros. & Co., Ltd., for three years, prior to starting business on his own responsibility.

Messrs. CHARLES ST. ROMAINE & Company, Army Contractors, Wine and Spirit Merchants, Grocers and General Contractors and Merchants, 8, Merchant Street, Rangoon. The business was established by the late Mr. Charles St. Romaine in 1878, at first in a small way as Soda Water Manufacturers and Army Contractors. Mr. St. Romaine, after carrying on the original business for some years, added a wine and spirit department. In the year 1894 he closed

the Aerated Water business. The firm has agencies for Steel and Coulson's Scotch ale in bulk, Alex. Ferguson's P. V. O. liqueur (10-year old) whiskey, Red Albion Special blend, Alex. McDonald's pure whiskey, also extra special Scotch Whiskey, specially bottled by the firm and carrying their own label, and Cowie's House of Lord Whiskey. The firm carry a general stock of wines, spirits and groceries. The late Mr. Charles St. Romaine was born in Calcutta in the year 1854, and educated at the Bengal Academy in the same city. His first business experience was with the firm of Smith, Stanistreet & Co., Chemists of Calcutta. He went to Rangoon in 1878 as a Manager of the Oriental Medical Hall, and took over their Mineral Water Manufacturing Works on his own account in the same year. From this beginning he established his present prosperous firm. Mr. St. Romaine died in 1908, leaving two daughters and a son, the latter at present studying engineering with the firm of Bulloch Bros.

Messrs. SWALES & PULLAR Architects, Rangoon. This business was established early in 1904 by Mr. Thos. Swales and was carried on by him till 1905, when he took into partnership Mr. Edgar J. Pullar, A.R.I.B.A. The firm have erected many of the principal commercial and private buildings in Rangoon, among which are Sofaer's Buildings, Stork & Co.'s Tubantia Buildings, the New Methodist Episcopal Church, Balthazar's Buildings, Graham & Co.'s offices, St. Paul's Institute, New Masonic Hall, the new American Baptist Mission College and many others. Mr. Thos. Swales is a native of County Durham, England, and was educated at the North-Eastern County School. He served his articles in Newcastle-on-Tyne, and later on went out to Singapore to the firm of Swan and Maclaren Architects of that city, with whom he remained about seven years after which he proceeded to Rangoon and established himself in business as an architect in that town. Mr. E. J. Pullar is a native of London and received his education at Dulwich College. He served his articles in London, and in 1901 was

elected A. R. I. B. A. after passing the examination. In 1902 he went to Singapore to Swan and Maclaren, and three years later joined Mr. Swales at Rangoon.

Messrs. TATA, SONS & Co., Merchants, 26, Merchant Street, Rangoon, Burma. Established in the year 1905 as a branch office of the same well-known firm in Bombay. The business of the firm principally consists of trade in rice and Japan silks and Bombay piece-goods. They are also exporters and importers of various kinds of general goods, and though lately established, the reputation of the head firm is a guarantee of success, of which they have already reaped a considerable share.

The firm of THACKER, SPINK & CO. was founded by Dr. William Thacker in the year 1819 thirty-eight years before the Mutiny. In those days trading, apart from the individual appointment or profession, was the rule rather than the exception. Dr. William Thacker was in no way different from his compeers, and he accepted an agency from Messrs. Kingsbury, Parbury, and Allen to sell in India their publications which were of Oriental interest. This business was started in premises adjoining the present Great Eastern Hotel and was at first known as St. Andrew's Library.

The bookselling and stationery business thus started grew very rapidly and after some years Mr. George Parbury was admitted a partner. In 1839 Mr. William Spink, a nephew of Dr. William Thacker, joined the business, and his great popularity and ability caused a remarkable expansion. An Army Agency was started under the style of W. Spink & Co., and branches of the main business were instituted in Bombay and Lucknow. The last named venture was destroyed in the siege, but a large part of the stock was brought out a few days before on camels and taken to Calcutta, this curious convoy, singularly enough, getting through without mishap of any kind. The branch in Bombay trading as Thacker, Vining & Co. was destroyed by fire in 1877; it was subsequently

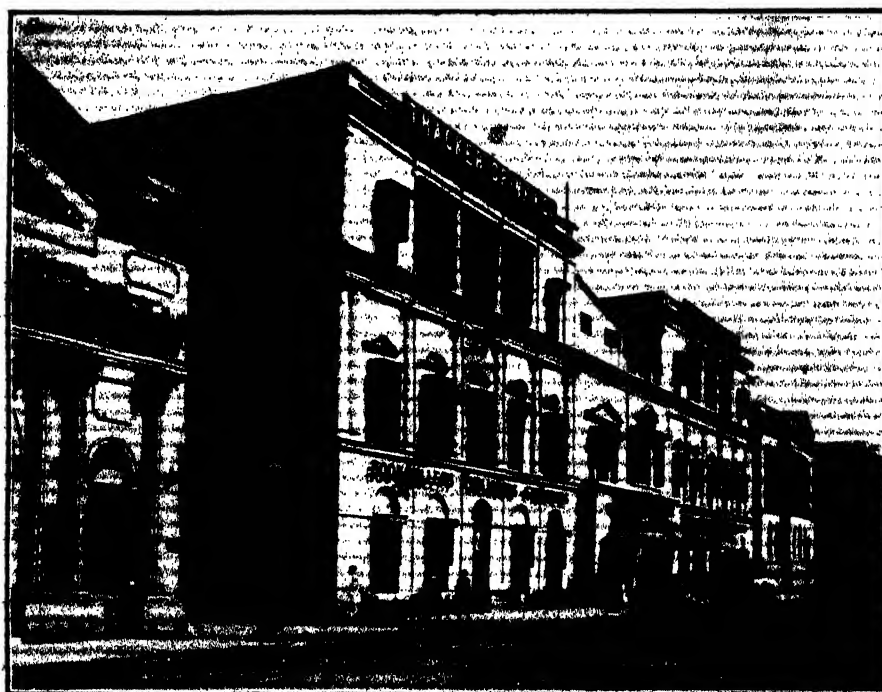
floated as a company under the style of Thacker & Co., Ltd., and has so continued to the present time, paying handsome dividends and doing a steadily increasing trade. The Army Agency was in 1860 taken over by Messrs. A. K. King & Co. But the great popularity of Thacker, Spink & Co. as bankers somewhat modified this transaction, as this part of the business was so largely personal. Banking accounts accordingly were continued and to the present day Thacker, Spink & Co. have a considerable banking connection. The business of Thacker, Spink & Co. at present comprises the well-known central establishment in Government Place, Calcutta, the London house at 2, Creed Lane, Ludgate Hill, a branch at Simla, a large printing establishment at No. 6, Mangoe Lane, and the Calcutta Phototype Co. at No. 1, Crooked Lane.

The Printing Office arose naturally out of the Law publishing that was undertaken in the early days of the business and is now of large dimensions. Also on account of the need of a special press to cope with the Indian Directory. In 1904 the press having largely outgrown its capacity, it was removed to its

present site at No. 6, Mangoe Lane. Thacker, Spink & Co.'s Press is most thoroughly equipped and is noted for the artistic nature of the work turned out.

The Calcutta Phototype Co. which was started by Thacker, Spink & Co. was the pioneer of photo engraving in India on a commercial basis. It has always had the reputation of turning out the very best process blocks. For some years past this branch has been working the three-colour process and the results have been so much appreciated that machine after machine has had to be added; and it is always difficult to fulfil the very large number of orders offering.

With regard to the main business, it is so well known that really little need be said about it. Thacker, Spink & Co. claim to be the oldest and largest firm of retail booksellers in the British possessions. The business has a large and increasing clientèle in India, Burma, Ceylon and the Straits Settlements. It has now been in existence for ninety years and from the constantly increasing volume of business it would seem that its efforts to serve the public with books and stationery are not without appreciation.



CENTRAL OFFICES AND RETAIL ESTABLISHMENT,
THACKER, SPINK & CO.



PORTION OF MACHINE ROOM, THACKER, SPINK & CO.'S PRESS.

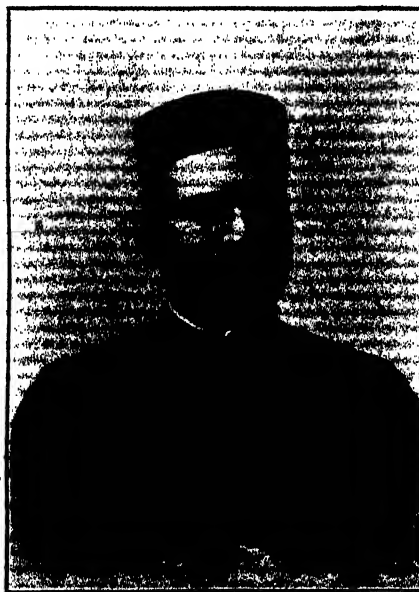


THE CENTRE AVENUE, THACKER, SPINK & CO.'S RETAIL ESTABLISHMENT.

THE TRADING COMPANY, late Hegt & Co., General Merchants, Rangoon. This firm has experienced many changes of titles since it was originally started about the year 1867 by Messrs. W. N. Hegt & Wytenhorst, for the retail trade under the style of "Hegt & Wytenhorst." Mr. Wytenhorst retiring after a few years the firm was continued as "Hegt & Co.," the partners being Messrs. W. N. Hegt, Döcke, and Jones. On the death of Mr. Jones and retirement of Mr. Döcke, Messrs. Dinckgreve, Mack and Klein came in as partners. Mr. Hegt died about 1880 or 1881 and his brother, Mr. J. N. Hegt, came out to Burma to take over the deceased partner's share of business, and, Mr. Klein having retired, the firm continued under the style of Hegt, Harperink & Co. Mr. A. V. Harperink having come in as a partner, Messrs. Dinckgreve and Mack were allowed to continue their business with their respective shares under the style of Hegt & Co., which, after a period of six months, was altered to Dinckgreve, Mack & Co., and on the retirement of Mr. Mack, to Dinckgreve & Co., still later changed to Stork & Co. On the discontinuance of the name of Hegt & Co., by Messrs. Dinckgreve and Mack, Mr. J. N. Hegt and Mr. A. V. Harperink changed the style of their firm to Hegt & Co., Wholesale and General Merchants, from which Mr. A. V. Harperink retired in 1890 to start the present firm of Harperink, Smith & Co. Mr. J. N. Hegt admitted his son Mr. L. M. N. Hegt to partnership on 1st January 1891, and he himself retired from business about the year 1897. The present firm of "Trading Company, late Hegt & Co.," was then constituted with Messrs. J. Nordhoek Hegt and T. M. Verster as General Directors, Mr. Fulco Westra as Managing Director, and Mr. A. F. Mathol signing per pro.

Rai Sahib C. VARADARAJOO MOODALIAR, Contractor, etc., Secunderabad. Born at Secunderabad in the year 1855 and educated at the Mahboob College in the same city. His family has been associated with the district for nearly a century. The Rai Sahib has been connected with contracting work all

his life, gaining his first experience, on leaving school, with his father, who was a Contractor before him. His father commenced business as an Army Contractor, but subsequently added operations in building, mining, railway contracts, etc., undertaking the sinking of shafts for mines and similar heavy work. The Rai Sahib has carried out many important contracts and is now engaged in building large new premises for Messrs. Spencer & Co. at Secunderabad, and is also carrying out irrigation work for H. H. The Nizam's Government. The Rai Sahib is popular with all classes and is especially respected by the European community. As an instance



Rai Sahib C. VARADARAJOO MOODALIAR.

of the good-will entertained towards him, on the occasion of the conferring of the Sanad of "Rai Sahib" in June 1907 a well attended function was held at the Deccan Club, when Major-General Hamilton presented him with the Sanad on behalf of the British Government, and complimented him on his services in public benefactions as well as in connection with the Cantonment Committee, of which he has been a member for the past twenty years. The Rai Sahib is Honorary Secretary of the Mahboob College, and Vice-President of the Girls' Patasalah. He is maintaining at his own expense the oldest Hindu Girls' School which was started by his late

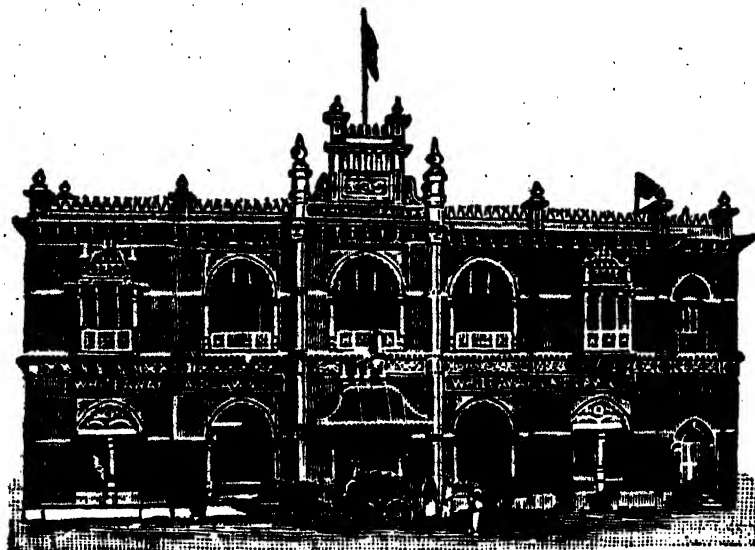
father, who was also associated with the founding of the Mahboob College (High School), an Institution at Secunderabad which teaches English up to the Matriculation standard. The College is managed by a private committee and is aided by the Government. It was started in the year 1862 as a small school and is now attended by some 650 scholars. The College is the largest and most important in Secunderabad. It is under the inspection of the Director of Public Instruction. The Girls' Patasalah is situated in St. Mary's Road, Secunderabad, and has two branches.

Messrs. PURSHOTAM VISHRAM & Co., Merchants and Agents, 14, Hummum Street, Fort, Bombay. Dealers in all descriptions of Mill and Engineering Stores, English and Australian Tallow, China Clay, Lubricating Oils, Roller and Clearer Cloths, Hoop Iron, Steel and Tin Card Cans, Sizing Flannel, Chemicals for Mill use. They make a speciality of sizing ingredients. They keep large stocks of all the material, and deal in both their own and agency goods. They are Agents for the following well-known firms:—James Walmsley & Son's "Crest Brand" Leather Beltings and Roller Skins, Leather Laces, Brown Oak-tanned Picking Bands, etc. Baron & Hogarth Healds and Reeds of the best quality. Hardman Ingham and Dawson Bandings and Ropes, manufactured from American and Egyptian Cotton. Hearl Heaton & Sons' Loom sundries, etc., Charles Cainson & Creewood, Card Clothing manufacturers. William Bodden & Sons, Ltd., Ring and Weft Spindles, Flyers, Spindles, Wheels, etc. Sutcliffe, Ltd., Card Can manufacturers. The Mill Supply Co., Ltd., for all sorts of Bobbin manufactures. Their English Office is at 2, Marsden Street, Manchester, and their large home connection puts them in a position to execute indent orders for Mill Stores, Spinning and Weaving Machinery, etc., with the greatest promptitude and on the most favourable terms.

The late Mr. VURJIVANDAS MADHOWDAS, J.P., Bombay. The youngest of the five sons of the late Mr. Madhowdas Runchor-

the firm is in general retail drapery, dry goods, hardware, crockery, and fancy goods, stationery, etc. They are also tailors and purveyors of wearing apparel of all kinds, boots, shoes, etc., besides household furnishing requisites. The Madras firm is only one of the 22 branches of this large business, and buying

based as it is entirely on cash payments, enables the firm to work at the lowest profit and thus to supply their customers at rock bottom prices, and the rapid turnover incident on this style of business ensures that the goods they offer shall always be of the freshest and most up-to-date description.



Messrs. WHITEAWAY, LAIDLAW & Co., LD., MADRAS.

on a large scale as the firm does for the supply of these many branches, in the East and Far East, they are able to deal direct with manufacturers in Europe and thus secure the most advantageous terms; this enables them to sell to the public at most reasonable rates. Their system of trading,

In many departments of the business Messrs. Whiteaway, Laidlaw & Co. stock specialities which are exclusively their own. Their illustrated catalogue published monthly is a work of art and is very convenient to Mofussil residents, to whom are brought by this means information and particulars of the

latest goods in the many lines which the firm deal. Through the medium of their catalogue the business with Mofussil residents has grown into a very large and extensive one. The establishment managed with European supervision at the head of each department assisted by a locally engaged staff. A European Cutter is employed in the Tailoring department and a European Milliner and Dressmaker for the Ladies' department. All the work is carried out on the premises. In the furnishing department they manufacture mattresses, quilts, razais, cushions, etc. This is also carried out on the premises to ensure that clean cotton and mattresses only shall be used. For the travelling public they cater largely in travelling requisites. Mr. J. M. Forster, General Manager of Messrs. Whiteaway, Laidlaw & Co.'s establishment at Madras, was born in Toronto, Canada, in the year 1871 and educated in his native country. He obtained his commercial training and experience with Messrs. Eaton & Co., Ltd., of Toronto and was for a considerable time with Messrs. Jordon, Marsh & Co. of Boston, Mass., U. S. A. He came out to India to join Messrs. Whiteaway, Laidlaw in 1898, and was employed at several branches of the firm at various centres, and early in 1908 he was entrusted with the charge of the Madras Branch.



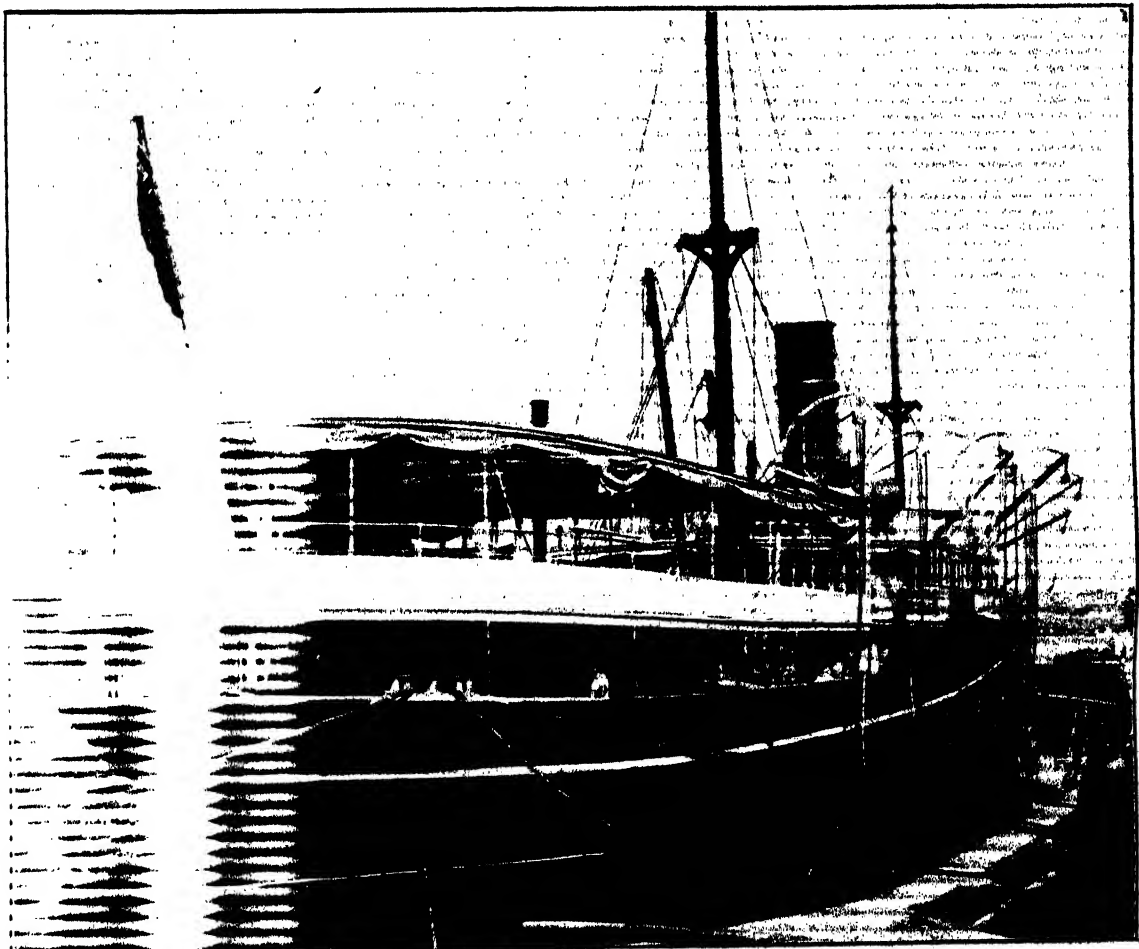
2000-2001

company, the Service Center, Inc., 4100 Oxford Avenue, Fairport, New York. The owner of several properties of the company, including a building

the
Haji
and
mills,
Petro-
Ma-
and
Fazlur

ters of the Company, Munshi Mahomed Kalamiah, the present Managing Director, took a very active part, at a sacrifice of his own interests. He receives no remuneration or advantage of any kind from the Company, but is devoting the whole of his energies to promoting the interests of this rising enterprise, and placing it on a sound

Among the organisers and promo-



THE BENGAL STEAM NAVIGATION CO.'S S. S. "PAKNAM."

tor of rice and cotton mills, and Money-lender.

The Company have three Agencies, namely, Messrs. M. David & Co., at Chittagong; Mr. Abdul Karim Haji Abdul Shakur at Calcutta; and Mr. K. Basive Reddy on the Northern Coromandel Coast.

The fleet of the Company consists

commercial basis. He it is who has brought the Company to its present position, and to him most of the credit of organisation is due, for he has worked very hard in the interests of the Company, and its patrons, the public. All the Directors of the Company are Chittagong Mahommedans, who have settled at Rangoon for the purposes of trade. In the initial stages of the enterprise much valuable assistance was given by the late Munshi Ihsan Ali, one of the principal organisers. He rendered substantial aid, more particularly in financial matters.

The chief object of the promoters of the Company is to facilitate trade interests, and to make due provision for the comfort of passengers who travel by their line, and at the same time to carry the merchandise entrusted to their charge with due despatch and at a minimum charge.



Mr. A. K. H. A. S. JAMAL.

Since the Company started in 1911 there has been a great saving effect by the reduction of passenger fares and freight charges, of which passengers and merchants have reaped benefit.

Although on account of the organisers of this purely *swadeshi* enterprise being Mahommedans, the present Board of Directors is composed entirely of Mahommedans; still any Hindu, or Burman with requisite qualifications is eligible without prejudice, for a Director. By the death of Munshi Ihsan Ali the Company lost its first and greatest benefactor; but the loss to a great extent been compensated by the election of Mr. Abul Karim Haji Abdul Shakur Jamal as President, and under his direct management the enterprise is making steady and satisfactory progress.

GHOSE, SIR CHUNDER MADHUB, Vol. II, page 162, retired from the Bench in January 1907, and on the occasion of his retirement received valedictory addresses from all the three branches of the Profession—the Barristers (headed by the Advocate-General), Vakils, and the Solicitors of the High Court. This was the first occasion when all the three bodies of legal practitioners joined together in presenting addresses to a retiring Judge.

PAL CHOWDHURY, S. C., Vol. II, page 233, *add* at end, "Babu Satish Chunder Pal Chowdhury is also a Member of the Committee of Management of the British Indian Association and an Honorary Assistant Secretary of the Bengal Landholders' Association, besides being a prominent member of various bodies—political, literary, social or otherwise,—and takes a keen interest in all the public questions of the day."

ROY, KUMAR ROMENDRA NARAYAN, Vol. III, page 316, Deceased.

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